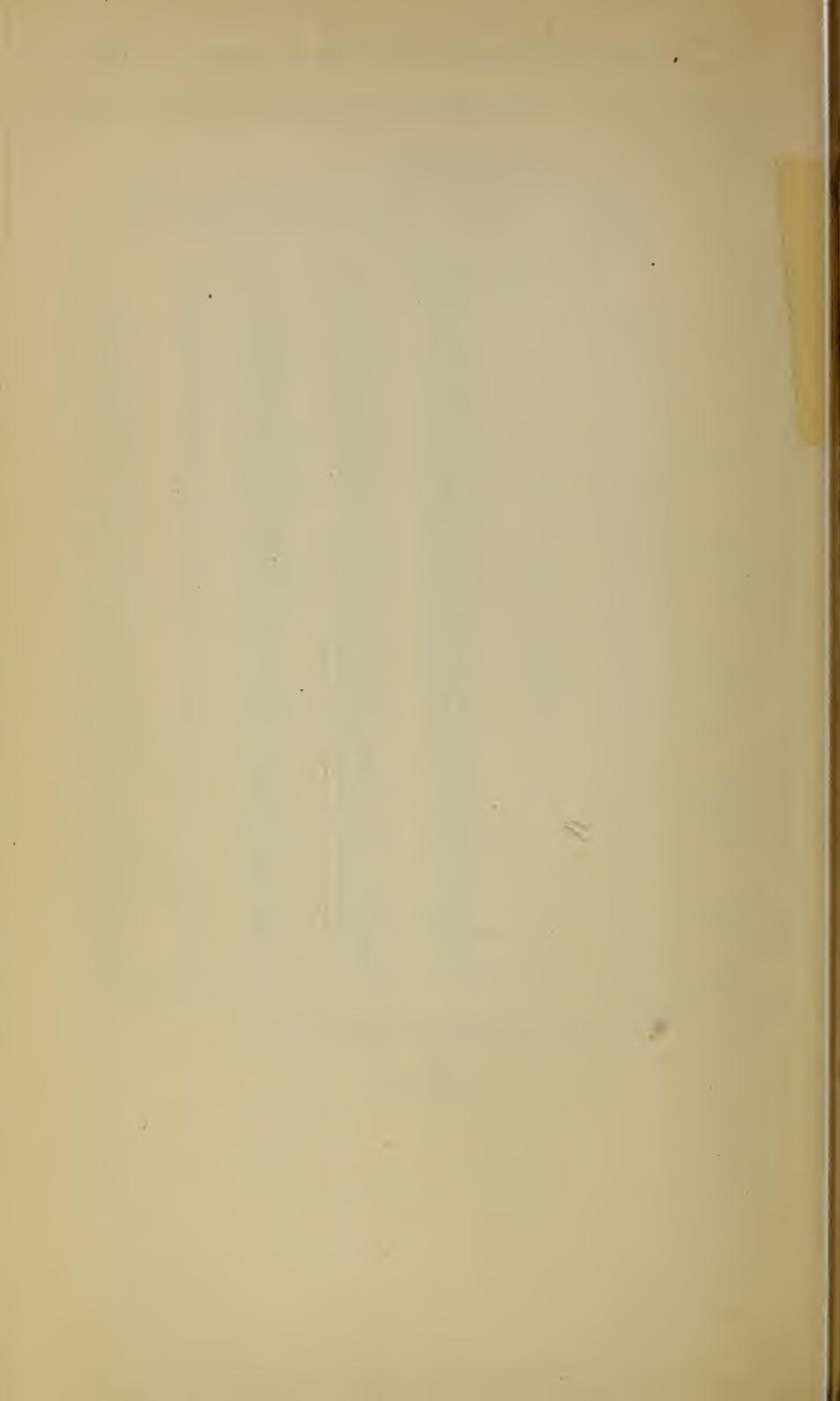


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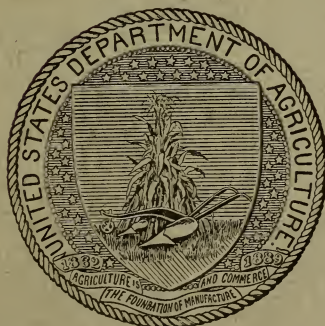
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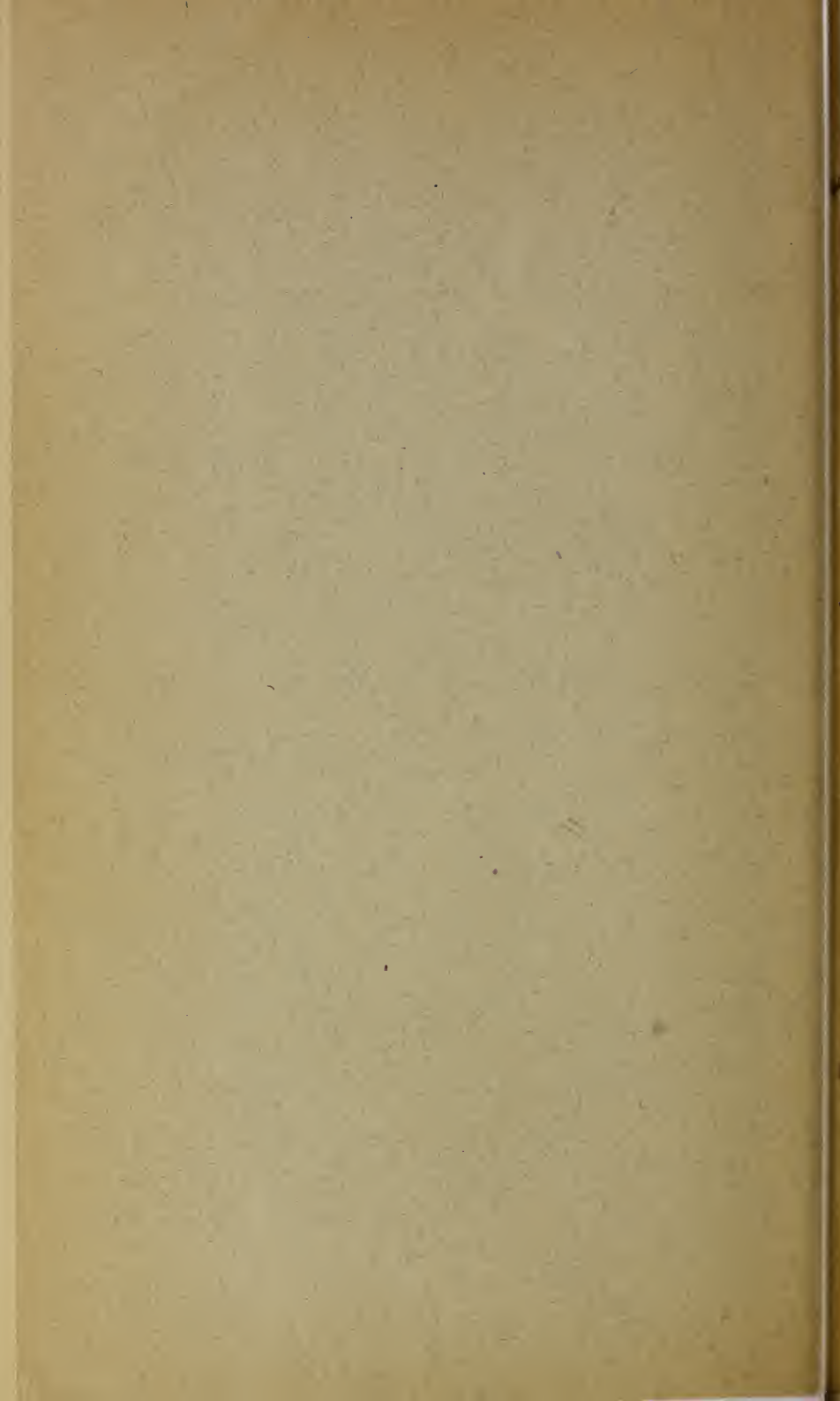
Farmers' Institute Specialist, Office of Experiment Stations.

[Reprint from Annual Report of the Office of Experiment Stations for
the year ended June 30, 1906.]



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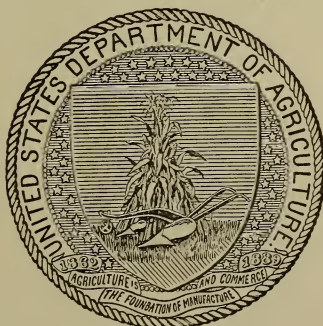
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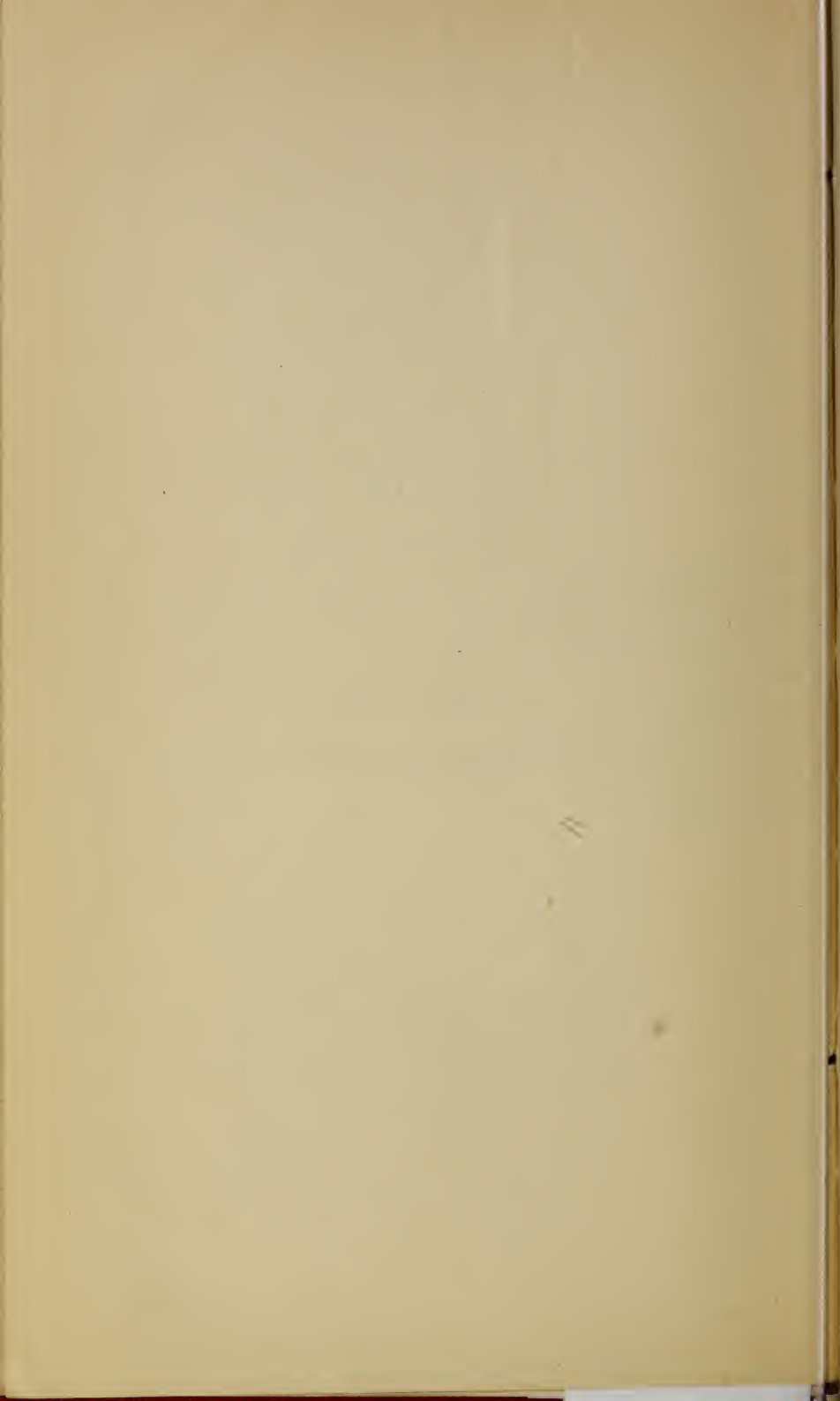
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THE FARMERS' INSTITUTES IN THE UNITED STATES, 1906.

By JOHN HAMILTON,

Farmers' Institute Specialist, Office of Experiment Stations.

The condition of the farmers' institute work of this country for the year ended June 30, 1906, as indicated by the reports sent in by the State directors, is quite gratifying. All of the States and Territories excepting Alaska now have institute organizations and all except Florida, Nevada, New Mexico, and Washington held institutes during the year.

The failure of these States to hold institutes was due to their respective legislatures having neglected to make necessary appropriations for their expenses. This interruption in their institute work is doubtless only temporary, since in most of the instances there does not seem to have been any serious dissatisfaction on the part of country people with the character or conduct of the institutes. The failure of the appropriations appears to have been due to conditions not likely to recur.

INSTITUTE STATISTICS AND PROGRESS.

The 45 States and Territories reporting show an aggregate of 11,409 sessions of regular institutes held during the year, with a total attendance of 1,299,172 persons. The attendance is computed by counting all present at each session and then adding these together for the total. This method is open to the criticism that it is inaccurate, since the same persons may be counted twice, or even several times. While this is true, the method nevertheless enables the actual condition of the work to be more nearly ascertained than the old method of taking the attendance at the largest session and adding to it one-half of those present at the next largest for a total. Institutes of only one or two sessions under the old method of computation often had the same attendance to their credit as those composed of five or six sessions—a manifest untruth and injustice.

By comparing the number of sessions held in 1906 with those held the previous year there is shown an increase of 854 sessions in favor of 1906, and by dividing the number in attendance in 1906 by the number of sessions held there is shown an average attendance at each session of 114 persons, as against 94 in 1905.

There was a corresponding increase in the number of lecturers employed by the State directors upon the regular corps of instructors. The number of lecturers in 1905 was 995; in 1906 this had reached 1,225, an increase of 230.

The money available for institutes in 1906 was considerably more than for the previous year. The amount available in 41 States in 1905 was \$225,738.89, and in 1906 in 45 States \$269,672.38, an increase of \$43,933.49. By comparing only States that have carried on institutes during both years there is shown an increase of \$35,072.90 in those States in 1906 over 1905, or a little more than 15 per cent.

For several years there has been a decided and steady advance in the amount contributed for institute support outside of the State appropriations. In 1903 the amount from this source was \$9,345; in 1904 it increased to \$11,394.91; in 1905 it was \$20,556.76, and in 1906 it was \$42,550.39, or 455 per cent more than the amount contributed in 1903.

This general increase in the appropriations for institutes has enabled the institute directors to improve their work by securing better teachers on the instruction force, but at the same time this improvement has slightly increased the average cost of the institutes per session. The average cost per session in 1903 was \$23.32. In 1906 it was \$28.12, an increase of \$4.80. The attendance at the special institutes reported by 19 States numbered 85,762. Fifteen States reported round-up meetings with an attendance of about 24,598. In 21 States railroad specials equipped with agricultural experts were sent out. In some of these States these specials were run under the auspices of the farmers' institutes, while in others they were independent of the institutes and consequently were not reported by the institute directors. Reports, however, were received from the following 13 States, giving the approximate attendance upon the institute special trains: Connecticut, 2,500; Illinois, 54,450; Kansas, 10,000; Maine, 55,000; Maryland, 3,125; Massachusetts, 6,000; Michigan, 5,000; Minnesota, 900; Mississippi, 9,127; Nebraska, 34,092; North Dakota, 17,696; Vermont, 10,000; Virginia, 8,000—making a total of 215,890. The aggregate attendance for the year at the regular institutes, the round-up meetings, the special institutes, and the railroad specials amounted to 1,625,422, about twice the number reported in attendance for the year 1903-4.

The teaching force of the State institute directors has enlarged from 924 expert lecturers in 1903 to 1,225 in 1906. The number of lecturers supplied by the agricultural colleges and experiment stations has increased from 196 in 1903 to 342 in 1906, and the time contributed in the same period by these lecturers is reported to have increased from 1,666 days to 3,119.

These facts are unmistakable evidences of progress, showing that the institutes have not only gained in wide recognition and in public confidence and appreciation, but that they are also reaching with agricultural truth a great body of workers, most of whom, but for this agency, would have been unable to have secured the information which they give for themselves. In this connection it is also worthy of note that the States in which the institutes have been longest in operation have begun to enlarge the scope of their work to include other forms of education extension, as boys' and girls' clubs, women's domestic science associations, and normal school work.

SUPPLYING COMPETENT LECTURERS.

Several State directors report that they have organized and conducted during the year schools of instruction for their institute workers. The need for training schools for preparing lecturers for their work is becoming generally felt. Out of twenty-three replies to the query "In what respects do you need assistance in your work?" nineteen asked for competent lecturers. The regular work of the agricultural colleges and experiment stations has increased to such a degree that in most States they find it no longer possible to spare their experts for any considerable amount of institute teaching; consequently, the directors of institutes are being compelled to face the question of preparing teachers for their institute work. This is particularly the case in the larger and more densely populated States.

Three methods for meeting this need are being considered. One is the establishment of interstate normal schools of agriculture, thoroughly equipped for giving the kind of instruction demanded, and open to institute workers at nominal cost. Another is the employment of fewer men as expert teachers and keeping them employed for a longer period. The movable school of agriculture is an effort in this direction. The third is a normal course in each agricultural college to fit men for institute teaching. The final solution of the difficulty will probably be found, not in the adoption of any one of these methods, but in a combination of all.

The demand, at least in the older States, is for high-grade instruction. The agricultural colleges and experiment stations in these States have set the standard until now in many localities anything below the best in institute teaching is received with impatience, and if persistently offered is openly rejected. It has been apparent to all thoughtful institute directors and teachers for some time that some modification of the institute system must be made if it is to be adapted to the new conditions and meet the increasing demands that have arisen in agricultural education.

THE REORGANIZATION OF THE INSTITUTE.

The somewhat sensational and elementary period of the farmers institute movement is about over. The problem now is, What shall be substituted in their stead and what form shall the organization take in order to most effectively carry on its work?

This raises the whole question of the field and functions of the farmers' institute. The institute movement has reached a point where it is important to have its purpose and scope clearly defined. What ought the institute to embrace? What ought it to be?

Although the institute movement has been in active operation for over twenty-five years, no satisfactory definition respecting the field that it should occupy, the precise methods to be adopted in imparting instruction, or the form of organization best for accomplishing its purposes have yet been agreed upon.

During the early period of the institute movement, which consisted largely in arousing the public and creating sentiment in favor of agricultural education, good work was accomplished without any, or at least with very little, system. Now that the work has been well started its scope extended, and gives evidence of permanency as an educational institution, a carefully considered definition of purpose has become a necessity, as well as the adoption of some well-organized plan for carrying it out. Two important committees have been at work during the past year investigating this question. One is a standing committee of the American Association of Farmers' Institute Workers on "cooperation with other educational agencies," and the other is a standing committee of the Association of American Agricultural Colleges and Experiment Stations on "extension work." These committees made reports to their respective associations this year. Their investigations were largely confined to securing data showing what is now being done in agricultural extension work and in discovering the institutions engaged in conducting it. For the coming year the committees propose to consider the subjects in greater detail, and have arranged to conduct so much of their investigation work as is common to both in cooperation.

There is prospect, therefore, that in the near future, through the instrumentality of these agencies and others now at work, the agricultural education extension movement in its various phases will be consolidated into a single organization constituted on lines broad enough and strong enough, both financially and educationally, to most efficiently carry out the great purpose of its existence—the improvement of country living, intellectually, socially, morally, and financially.

The great interest that the agricultural colleges and experiment stations are manifesting in respect to the work and organization of

the farmers' institute, while partly due to the relations that have existed in the past, whereby much of the instruction given in the institutes has been by the teaching force of these institutions, is no doubt mainly because in thirty States and Territories the institute control is entirely in the hands of the colleges and stations, and in three others it is about equally divided between them and the State departments of agriculture. The question of the future field and efficiency of the institute, therefore, affects directly the usefulness of these colleges and stations as leaders in agricultural education and the institute work for which they are responsible can not, therefore, be permitted to remain much longer in its present undefined and unorganized condition.

MOVABLE SCHOOLS OF AGRICULTURE.

Much of the time of the institute specialist during the year has been devoted to perfecting plans for the organization of the movable schools of agriculture referred to in the last report. A bulletin entitled a Course in Cheese-Making for Movable Schools of Agriculture has been issued. The course consists of 14 lectures, with references and a corresponding number of practice exercises.

Great care was taken in the preparation of this course to have it in proper pedagogic form. The difficulty of condensing the subject into comparatively few lectures and at the same time insure its reasonably full treatment was partially overcome by the liberal use of references by the lecturer to authorities, indicating the volume and page where extended descriptions may be found.

Immediately following the lecture and preceding each practice exercise a period of several hours is expected to be given to looking up authorities and to collateral reading. No notes are to be taken during the delivery of the lecture, but at its close a syllabus with all of the references will be handed to each student. In this way the undivided attention of the members of the class can be given to the substance of the subject treated without their being compelled to devote their time to the mere manual operation of transcribing.

The practice exercises are upon the points presented in the lecture, and vary in length from one to four hours, according to the nature of the subject. A complete list of apparatus needed and of books of reference is given in the bulletin, thus enabling the character and cost of equipment to be ascertained and provided for. The complete outfit of apparatus for 15 students, including the library of reference, need not exceed in cost four to five hundred dollars.

A course in fruit growing is now in press, and other courses are being prepared.

RAILROAD SPECIALS AND INDUSTRIAL WORK OF RAILROADS.

Railroad specials equipped with lecturers, charts, specimens, books, bulletins, and demonstration material have been sent out in 21 States. This movement in institute work, begun in the Western States three or four years ago as corn specials, has extended to the East and South, and they now give instruction upon a wide range of topics adapted to the agricultural conditions of the several sections. The institute specialist accompanied one of these trains last spring through a portion of Illinois. The train was furnished by the Illinois Central Railroad Company, and consisted of a locomotive, baggage car, two coaches, one dining car, and a compartment sleeper. The company bore all of the expenses excepting the salaries of the lecturers, which were met by the University of Illinois. Although the country roads were deep with mud, the attendance at the stations at which the stops were made was all that could have been desired, ranging in number from 150 to 400. One day by actual count the attendance was over 3,500.

Reports of similar manifestations of interest have come from other States in which these trains have been utilized. The novelty of the method has no doubt had something to do with the attendance, but there seems also to have been, as evidenced by the close attention given to the lecturers and by the questions asked, a real desire for information.

Perhaps the most significant feature of this movement is the interest that the transportation companies are taking in agricultural education, or at least in the dissemination of agricultural information. In every instance prominent railroad officials have accompanied the trains, and have assured the farmers of their interest in promoting the welfare of farming people. This effort on the part of the railroads to improve agriculture is undoubtedly the beginning of the organization in the management of these companies of a corps of agricultural experts who shall devote their entire attention to the development of agriculture in its several phases, and also to assisting farmers in the marketing of their crops.

A recent investigation by the institute specialist into what the railroad companies of the United States are doing in aid of agriculture discloses the fact that with few exceptions they are coming as never before to appreciate this source of traffic, and quite a number of companies have already begun the organization of departments for the aid and encouragement of this industry. One company has three expert specialists and two assistants who devote their entire time to instructing and otherwise aiding the farmers. This company also publishes a monthly magazine giving information with respect to farm lands and methods of culture. Another company has been

instrumental in organizing fruit growers and truckers' associations at different points along its road, and issues printed circulars and bulletins of information respecting the agricultural advantages of the several localities through which the road passes. This company also employs experts to teach the trucker and farmer, and to oversee and assist him in his work. Some of these experts have had training in the agricultural colleges and experiment stations of the country, and others are commercial men of years of experience, who aid in marketing produce and assist by teaching the fruit growers and truckers how to grade, pack, and prepare their products so as to suit the peculiar demands of the various cities. This road has a soliciting freight agent in every northern city of any magnitude. The agent informs the fruit growers' associations and individual growers daily, and oftener if required, as to the exact condition of the market in the city where he is located. He advises of the arrival of the cars, the condition of the contents, and often gives the prices which were obtained for the consignment before the consignee reports the arrival of the car.

Another company has distributed along its lines 800 pure-bred bulls and 6,000 pure-bred pigs for breeding purposes, and it also offers prizes for the best-managed farms in the several districts through which it runs.

A western company has organized thirty-five farmers' institutes and truck-growers' associations. Another reports eighteen such organizations in its territory. In Texas the railroads have associated for the development of the industries of the State, and are encouraging and aiding the introduction of diversified crops, the improvement of the rural schools, and the construction of substantial highways in the country districts. The industrial agent of an important road in the Southwest, in reporting upon the methods adopted by that road in the encouragement of agriculture, states, "I have tried to use methods in promoting the success of the various farmers along our line in diversified farming the same as if they were tenants on a big plantation and I its manager responsible for their success."

There is opportunity for this Department to assist the railroad companies, and through them the agricultural industry, by investigating the relation of transportation to agriculture, and advising as to methods that the companies can adopt that will assist farmers in the marketing of their crops, and encourage the production of such articles as are best suited to their soils.

NEW FEATURES.

A number of new features have been introduced into the institute work during the year which give promise of becoming valuable additions to the methods heretofore used in giving instruction. In one

county of Illinois (Scott) the Business Managers' Association of Winchester offered a prize to one boy in each voting precinct (\$10) toward defraying his expenses at the winter short course at the State Agricultural College. The method adopted in selecting the boy from each precinct was to distribute a 14-page bulletin on Soil Fertility among the young people in the public schools of the county. The pupils were requested to study the bulletin and report at the next meeting of the farmers' institute for examination, the one standing highest in each voting precinct to receive the prize.

This year fifteen boys appeared for examination, representing nine voting precincts. As a consequence, nine voting precincts in that county will be represented in the college of agriculture in the State University this year. This experiment, fairly successful in its first trial, suggests wide possibilities, extending in many other directions, in interesting young people in agricultural education.

Another experiment, conducted in Carroll County, Md., under the direction of the farmers' institute, was the employment of a peripatetic teacher of agriculture to visit the country schools and speak to the scholars on country life, particularly in its agricultural features.

While the experiment was not as successful as its promoter wished, owing to local conditions which were unfavorable, it nevertheless is a feature of extension work that is entirely feasible, since substantially the same methods have been in use in European countries for many years, and everywhere with pronounced success.

Another plan for securing a closer union between the institute and the public schools was put in operation in Michigan with some degree of success. Several county secretaries of farmers' institutes made arrangements with the county superintendents of schools by which the superintendents furnished speakers for a series of institutes to continue from four to twelve days. During the forenoon of the day upon which the institute was to be held the county superintendent of schools, accompanied by the speaker which he furnished, visited the schools in the neighborhood where the meeting was to be held in the afternoon. Brief addresses were made to the pupils, and then the teachers were requested to dismiss their schools, so that the older pupils could attend the institutes in the afternoon and evening. At the afternoon and evening sessions of the institute the regular speakers employed by the institute director delivered addresses on agricultural subjects, and then the speaker furnished by the superintendent of schools, frequently the superintendent himself taking part, addressed the institute upon topics relating to rural schools and country life.

In California cooperation between the institutes and the public schools is formal and organized. A farmers' institute section has been created in the State Teachers' Annual Convention. This section

heretofore has been chiefly for the purpose of the discussion of methods for the introduction of agriculture into the public schools. This year similar farmers' institute sections are to be formed in the several district teachers' associations as well.

The superintendent of farmers' institutes for Saskatchewan, Canada, has introduced a feature into his institutes that has been quite popular and successful. In the stock-growing sections he has converted the morning and afternoon sessions of the farmers' institute into stock-judging schools, holding the regular institute meetings at night.

A number of State directors of institutes have been holding field meetings successfully, examining crops, spraying fruit, inspecting fields, gardens, farmyards, stables, etc.; examining animals and crops, and identifying fungus diseases and injurious insects.

In one other State special sessions of institutes have been held, one or two each month, and in another the main addresses have been materially shortened, the major portion of the time being devoted to discussion.

In the Province of Quebec, Canada, the director has undertaken to classify the subjects that the institutes are to treat into groups, and the lecture force is selected with a view to meeting the special requirements of each group. It is stated that this classification has assisted in organizing the work in a more methodical way and has enabled the director to control the teaching force in such a way as to meet more satisfactorily the special needs of different localities. The grouping at present is under the following general heads: (1) Feeding the milk cow; (2) the breeding of the bacon pig; (3) agricultural instruction in rural schools; (4) fodder plants and herbs; (5) cultivation of the soil; (6) improvement of live stock; (7) bee culture on the farm; (8) poultry rearing; (9) fruits and fruit trees, and (10) gardening.

Each of these topics is subdivided into a number of items, as, for instance, topic No. 5, on the cultivation of the soil. This is treated under five divisions or subtopics: (a) Rotation; (b) tilling the soil; (c) drainage; (d) farmyard manures and commercial fertilizers, and (e) green manure.

This is an attempt to define in a practical way the scope of the institute, and if developed will result in a clearer understanding of what the institute is organized to do and the precise methods which it proposes to use in carrying out its purpose.

Two new features have developed during the year in connection with the institute trains or railway specials. The method in most of the States heretofore has been to endeavor to cover as much ground in a given period as possible. As a consequence the stops at the several points have necessarily been quite brief, limited to from thirty to forty minutes. One State, this year, has departed from

this and scheduled each of its stops for two hours. This has given more time to confer with those who attend the meetings to deliver lectures and to give explanations. The other method was the utilization of the institute railway special as an "emergency train" designed to cover as large a territory as possible in a brief period. This was for the purpose of disseminating a single item of information of special importance which the farming people needed to know immediately, in order that they may successfully meet the new conditions which the emergency has brought about. The train is delayed in its sending out until just before the farmers are ready to perform the operation which it is desired to influence. In North Dakota, for instance, this took the form of a "wheat rust special" sent out immediately before the wheat-seeding period. The lecturers showed the rust in its forms of attack and gave remedies and methods of treatment of the seed, teaching the farmers how to treat it themselves and urging them to adopt the methods recommended. The timeliness of the information made it more impressive than if attention had been called to the matter months before. Many farmers treated their seed according to the directions who would not have done so had it not been for the somewhat sensational method, and more than all the well-timed period of calling attention to its importance.

THE AMERICAN ASSOCIATION OF FARMERS' INSTITUTE WORKERS.

The eleventh annual meeting of the American Association of Farmers' Institute Workers was held at Baton Rouge, La., November 12-14, 1906. Thirty-seven States and Territories were represented and 4 of the provinces of Canada, with a total attendance of 116. Statistical reports showing the condition and progress of the work were presented by 34 States and Territories and 5 provinces.

The association, at its meeting in Washington, provided for the appointment of standing committees on institute organization and methods, institute lecturers, cooperation with other educational agencies, movable schools of agriculture, boys' and girls' institutes, women's institutes, and legislation. The reports of these committees constituted a most important feature of the Baton Rouge meeting. The committees had given a good deal of careful thought to the subjects assigned them, and their reports, consequently, contained many well-considered suggestions. The great importance of the thorough organization of the institute was dwelt upon with much emphasis and particularity. The president, in his annual address, referring to this feature of institute work, said:

I am thoroughly convinced that the crying need is for stronger organization among farmers themselves, calling for regular meetings every month or oftener in each locality, conducted and managed entirely by local help, with an occasional outsider who

knows the needs of the district. This state of things, in my opinion, can best be brought about by a permanent organization in each county, with committeemen or directors in every farming community. The secretaries of such local institutes soon become regular correspondents of the State directors. All communications are sure to come before the local board at the regular meetings, the localities themselves designating where the meetings are to be held, and hold themselves responsible for their success or failure.

He continued:

Such an organization, wherever tried, has brought about the following results: (1) More and better meetings in each county; (2) feeling of responsibility for the success of the meetings, because they are "ours;" (3) a closer touch with the State department of agriculture; (4) thorough organization, an opportunity of visiting and studying the methods of work employed by the State agricultural colleges and experiment stations, and (5) by virtue of the increased number and regularity of the meetings an opportunity is given and appreciated of carrying out a systematic study and discussion of the principles underlying the science and practice of agriculture.

The president concluded this part of the discussion by saying:

I feel that I can not speak too strongly on the absolute necessity of organized effort in this educational movement if we are to raise the general standard of intelligence among farming people.

The standing committee on institute organization and methods in their report agree that the organization of the institute has now become a necessity in order to do effective work. The report says:

It appears to your committee that so far as possible there should not only be a State organization to lay out and supervise the work, but that there should also be county, township, and similar local organizations, to have immediate charge of the arrangements for the meetings, and that these should be of a permanent nature, with a constitution, by-laws, and rules for carrying out their institute work. The maintenance of local organizations with regular members, each of whom pays a small fee, also serves to increase the interest in the work, particularly if they can be made to feel that it is "their institute." And, on the other hand, while the local officers would be consulted regarding topics, dates, and places, the actual selection and assignment of speakers, the grouping of meetings, which to a certain extent will fix the time and place for the meetings, should remain with the State director or superintendent of institutes. To this end we again commend the general scheme for an institute system prepared by our secretary, Mr. Hamilton, and which was printed in the last report of the association.^a

The report of the committee on women's institutes was in the nature of a preliminary report, giving only the localities in which such institutes are found and the condition of women's institutes in the United States and Canada. Replies in answer to inquiries by the committee respecting the condition of the women's institute work were read from 33 States and Territories and from 5 of the provinces of Canada. Twenty-two States and 3 of the provinces reporting had no separate organizations for women, although many women attended the regular institutes. In 11 States and 2 provinces women's institutes have been organized with satisfactory results. The committee

^a U. S. Dept. Agr., Office of Experiment Stations Bul. 165, p. 78.

did not offer any formal recommendation for adoption by the association, but submitted the results of their investigations as a report of progress.

The committee on institute lecturers directed its efforts chiefly to discovering whether or not there is an adequate supply of capable institute lecturers available for the work. In beginning this investigation the committee were confronted with the need for a definition of institute work, its purposes, and scope. The committee say:

The purposes and scope of the farmers' institute work must be determined and established before intelligent recommendations can be made regarding ways and means of supplying suitable institute lecturers. This must be determined before we can even know what sort of institute lecturers we need, much less formulate and execute plans for securing and maintaining them.

The committee then announced their views in the following language:

In the opinion of this committee the work of the farmers' institute is educational; to carry agricultural education to those on the farms who have lived beyond the usual school or college age. Farmers' institute work is in no sense university extension any more than is an agricultural college a university. The investigations of the committee convince them that in most States there is no scarcity of institute lecturers capable of entertaining an audience; but that there is a lack of fit instructors in agriculture in many of the States, and the reason why other States reported "that there was no scarcity" was because there was little demand—that is, "little work was being done."

The committee, in considering the preparation of a sufficient supply of efficient lecturers, expressed the following view:

The suggestions of your secretary for district (interstate) schools for the training of institute workers seems to be best. Two, three, or more States, where conditions are similar, are combined to educate institute workers and interchange in their employment. This would be the cheapest and most effective method. In the way of this and of all other methods, however, stand two difficulties—short periods of service and low compensation.

The conviction expressed by the committee, that in the way of securing permanently an effective force of institute lecturers, stand the two difficulties, that of short service and low compensation, states a most important truth. In some way the farmers' institute will have to provide a career for its teachers similar to that of educational institutions having fixed classes, and the compensation must be sufficient to attract the most competent teachers to this service if it is to maintain itself at an educational standard above mediocrity.

In the discussion it was suggested that it might be possible to establish normal departments in the agricultural colleges for the training of institute lecturers, requiring the student to deliver lectures and undergo criticism and questioning by his audience, after the manner of a real institute meeting, admitting to this class graduates of the institution and others whose educational qualifications

were of proper standard. The committee did not present any formal recommendations for adoption, but offered its suggestions for discussion and further consideration.

The committee on cooperation with other educational agencies presented a quite extended report. Their investigations were mainly directed to securing information upon four points: (1) Cooperation with the National Department of Agriculture; (2) cooperation with the State experiment stations; (3) cooperation with the superintendents and teachers of schools, and (4) cooperation with the agricultural colleges.

A large number of inquiries were sent out requesting information and many replies were received. As a result of their inquiry and of a careful study of the question by the individual members, the committee presented its conclusions in the form of a number of statements, concluding with the following resolutions, which the association adopted:

That it is the sense of this association that an important function of the farmers' institute is one of cooperation with other educational agencies; that the institutes should, whenever possible, be so managed as to bring together a goodly number of those engaged in agricultural practice; that there should always be some instruction that is in accord with the work of the experiment station and the United States Department of Agriculture; that this instruction should be so presented as to awaken interest in what is being done in agricultural investigation, and turn the attention of the people to the sources of information; that the young people and their teachers should be interested to attend the institutes, and the programmes should be so arranged that their interest in agricultural education may be awakened and the cooperation of the schools secured. In a word, it is the sense of this body that the aim of the institute should be (1) to teach a few things, and (2) to do this so well that the desire to know many things will be created; (3) to point the way to the sources of information—for adults, the station and the Department of Agriculture; for young people, the schools and agricultural colleges, and (4) to make sentiment in favor of a liberal support of all these educational agencies.

The committee in analyzing its correspondence found that in answer to the query, "To what extent is such cooperation desirable?" 41 out of 53 replied, "To the fullest extent practicable;" and to the question "To what extent has such cooperation been practiced in your State?" 44 out of 53 replied, "To the fullest extent practicable." The investigation revealed the fact that there is both on the part of the institutes and on that of the other educational agencies a most cordial spirit of cooperation.

The committee on movable schools of agriculture directed attention to the need existing for giving a greater amount of special instruction in the institutes than has been given in the past, and that the future development of the institute would be along these lines. They suggested that the movable school, teaching thoroughly a few fundamental agricultural subjects according to a well-constructed course of study, offers a possible solution of the present

difficulty. The committee recommended and the association passed the following resolutions expressive of the sense of the members upon this subject:

Resolved, That this association, appreciating the importance of providing more systematic and extensive instruction in agriculture in the farmers' institutes, hereby expresses its approval of the use of the movable school of agriculture as an instrument for this purpose. Second, that it commends the form of organization outlined and courses of study prepared by the National Department of Agriculture for the establishing of such schools, and hereby earnestly requests the Committee of Agriculture in Congress to recommend and the Congress to pass an appropriation sufficient to enable the Department to perfect plans and courses of study and to organize, equip, and place in operation, in charge of competent experts, a number of these schools as demonstrations of their value and practicability.

The committee on boys' and girls' institutes addressed six queries to the State directors of institutes respecting the number of boys' and girls' institutes held in their several States, their special features, the attendance and interest, the character of programme best adapted to these meetings, and the kind of publications most helpful in interesting farmers' boys and girls in agricultural subjects.

The committee concluded its report by saying—

That there is certainly very great interest in the subject of boys' and girls' institutes is indicated by this correspondence. This interest may be viewed as part of the general movement for more extensive instruction in agriculture among rural young people, which has manifested itself in recent years not only by greatly swelling the attendance in the agricultural courses in our agricultural colleges, but also by introducing instruction in agriculture into the rural schools.

There are various agencies at work along these lines. In some States there seems to be no need for the farmers' institute taking it up; in others, the farmers' institute appears to be about the only organization through which we can hope that the possibilities and advantages of agricultural education can be brought to the attention of the American people.

The proceedings of the convention published for distribution by this Department are accessible to those who are interested in the details of its deliberations.

EDUCATION EXTENSION IN AGRICULTURE.

In addition to rendering assistance to the farmers' institutes, the duties of the institute specialist were enlarged during the year to include investigations into the other forms of agricultural education extension work. In these investigations the Department is cooperating with the standing committee of the Association of American Agricultural Colleges and Experiment Stations on extension work of which the institute specialist was made secretary.^a

In conducting this cooperative investigation the secretary sent out about 5,000 circular letters to educational institutions and to social

^a For report of the committee see U. S. Dept. Agr., Office of Experiment Stations Cir. 72.

and business organizations requesting information respecting such forms of agricultural education extension as they might be conducting. Each letter was accompanied by a blank upon which to make out the report and by a franked envelope for transmitting it to the Department. One thousand and one replies were received and 317 of them, or about 6 per cent of the entire number addressed, were engaged in some form of extension work.

The investigation showed not only that there is deep interest on the part of educators everywhere in the agricultural education extension movement, but that there is also a large amount of work of this character now being carried on throughout the country. While no single institution has engaged in all of the lines of agricultural extension activity, yet in the aggregate almost every feature of the agricultural industry is recognized by some educational effort in its behalf.

The correspondence brought into prominence several important facts. The first is, that there is among educators in the higher institutions of learning in all of the States a sincere and deep interest in the success of the movement for imparting agricultural information to the masses. This is particularly true as respects those who are connected with the agricultural colleges of the country. While the amount of extension work which they are doing is considerable, the methods employed are as yet diverse and ill-defined. There has been no agreement among their faculties respecting methods for carrying on extension work, the subjects most needed to be taught or the pedagogic form that the instruction should assume.

Another important fact was developed. It is the universal appreciation by country people of what has been attempted in agricultural education in their behalf. Whether the effort has taken the form of the farmers' institute, the traveling library, school garden and field demonstration work, nature study, agriculture in the public schools, the corn-judging contest, stock judging at county fairs, agricultural literature, courses of lectures by college men on agricultural subjects, the railroad special, the dairy expert—all are thoroughly appreciated. Instead of the information thus given satisfying the farmers' desires, the demand is for more and for further systematizing, perfecting, and extending these lines of effort until the information which is now only fragmentary and disconnected will be systematized so as to become a proper and permanent part of the general system of industrial education.

A third fact expressed in the communications is the desire on the part of those who are engaged in this extension movement for plans and methods that will enable them to do more effective work along extension lines. Each worker until now has been dependent largely

upon himself for plans and methods and has been living in comparative ignorance of what his fellow-workers in agricultural education are doing in similar directions. The mere collecting and publishing of what is being attempted in agricultural extension work will, no doubt, by the mere bringing together of suggestions and placing them in the hands of educators, gradually secure their adoption and thus in time effect substantial unity of method.

Another feature which the investigation revealed is the increased use of agricultural literature wherever agriculture is being taught to country people. Standard agricultural books, experiment station bulletins, publications by the United States Department of Agriculture, and agricultural periodicals, all are taken and read as never before. Children in their school and home garden and in their corn-growing contest work are reading scientific books and bulletins to get the latest information to enable them to plant, fertilize, cultivate, and care for the things that they have undertaken to produce.

A fifth fact is the intense interest that school children are taking in agricultural study both in the town and country schools. The reports without exception, when speaking of this phase of education work, refer to it as a point of special note.

The investigation further shows that a great obstacle in the way of extension work in agriculture is the lack of teachers qualified for giving this kind of instruction. The means for supplying an adequate number of capable teachers is a problem not yet satisfactorily solved. It is manifest, however, that this extension work in agriculture must, before competent teachers can be had, provide a profitable career for educated men. Extension teaching will have to become a profession to be engaged in continuously and be at least as remunerative as regular instruction service in colleges or normal schools, before competent men and women will prepare for and enter upon institute work as a life pursuit.

The committee in its report formulated the following tentative definition of extension teaching in agriculture:

Extension teaching in agriculture embraces those forms of instruction in subjects having to do with improved methods of agricultural production and with the general welfare of the rural population that are offered to people not enrolled as resident pupils in educational institutions.

The institutions for higher education not agricultural are doing very little in the way of extension teaching in agriculture. The normal schools, however, have taken up this work with considerable vigor in some of the States and have not only been giving agricultural instruction to their students but have also been sending out instructors to assist in the farmers' institutes, by delivering lectures, to conduct demonstrations, and to aid in school garden work, in connection with the district schools. Some of the normal schools are issuing

bulletins of information and circulars containing directions to teachers along agricultural lines. They are also assisting in organizing rural study clubs, reading circles, and school-house improvement clubs in rural communities.

State and county superintendents have been quite active in a number of States in forwarding this extension movement. One hundred and twenty-three reported forms of assistance in agricultural extension work in which they were participating, such as supplying lecturers for farmers' institutes, sending out itinerant lecturers to visit public schools, holding county teachers' institutes for agricultural instruction, organizing field-crop contests for country children, and in rendering similar practical assistance in extension work.

The realization of the fact that only 6 per cent of the people of this country receive education beyond that given in the common schools is bringing the institutions for higher education to a sense of their responsibility to the remaining 94 per cent and is causing them to set about discovering some means by which this multitude can be reached with at least as much scientific and practical information as will fit them for the intelligent pursuit of their calling. This diffusion of knowledge is especially important in agriculture. The difficulties connected with the profitable pursuit of this occupation have become so great since the more easily available fertility of our soils has been abstracted as to make it essential that those who are to support themselves comfortably in the future by this profession shall understand, at least, the fundamental principles that underlie their art. The educational institutions established mainly in aid of agriculture are and will continue to be properly held accountable for any failure to supply the information needed to meet the requirements that may exist.

In practical recognition of this responsibility, the committee recommends that each land-grant college organize at once a department of extension teaching in agriculture and, where this for any reason is impracticable, that a committee of the faculty be appointed on this subject.

There was no change in the personnel of the standing committee and it proposes pursuing its investigations in greater detail, that it may at some future time be able to recommend a form of extension teaching that will be generally applicable.

The chairman of this committee was recently appointed chairman also of the standing committee on cooperation with other educational agencies of the American Association of Farmers' Institute Workers. The work of the two committees is interrelated to such a degree as to render it possible for them to cooperate to considerable extent in conducting their investigations.

DEPARTMENT AID IN PROMOTING AGRICULTURAL EDUCATION EXTENSION.

A most pressing and important need just now in agriculture is a more effective method for imparting that which is already known to those who are to use the information. The discovery of a practicable method by which the truths of science relating to agriculture can be taught to farmers is fully as important to agriculture now as many of the investigations which are occupying the time and attention of scientists and requiring large annual appropriations to conduct.

The farmers' institute has heretofore been devoted to awakening agricultural people to an appreciation of science as it relates to their occupation. The more important work of imparting these truths to the working farmer in form and in sufficient quantity to be most helpful has scarcely been undertaken, due chiefly to lack of knowledge of the methods best to be pursued in their presentation.

For the discovery of these methods there is needed a force of experts who shall devote their time to researches in this direction. The discovery of pedagogic methods logical in arrangement and adapted to rural conditions through which to impart agricultural information is just now as important to mankind as the discovery of new truths in the physical world. Without new and improved educational machinery for disseminating information, much valuable physical truth, secured at great cost, must lie unused, or if utilized at all be so to only limited extent.

To do this work thoroughly it would be necessary to do more than merely organize for the study of pedagogic forms. It would require first of all systematic study of the social, educational, and economic conditions of agriculture with a view to discovering and suggesting methods for their improvement.

To organize for this it would be necessary to first classify the various interests to be aided and then to employ experts to study the conditions that exist in each class, to recommend methods of improvement, and to urge the adoption of the methods recommended by the classes interested.

The following outline is suggested as a possible classification of institutions whose work would furnish the subjects for a broad investigation of the requirements of agricultural education:

INSTITUTIONS CONCERNED IN AGRICULTURAL EDUCATION.

CLASS I. Farmers' institutes, embracing the work of—

- (1) State farmers' institute directors.
- (2) State farmers' institute lecturers.
- (3) Local managers of farmers' institutes.

- CLASS II. Institutions for higher education, embracing the work of—
- (1) Faculties of agriculture in colleges and universities.
 - (2) Staffs of the agricultural experiment stations.
 - (3) State normal school teachers.
 - (4) Agricultural high school teachers.
 - (5) Teachers in correspondence schools of agriculture.
- CLASS III. Agricultural organizations, embracing the work of—
- (1) State boards and departments of agriculture.
 - (2) State agricultural fair associations.
 - (3) County agricultural societies.
- CLASS IV. Systems of public instruction, embracing the work of—
- (1) State superintendents of public instruction.
 - (2) State normal school superintendents.
 - (3) County superintendents of public instruction.
 - (4) Common and high school superintendents.
- CLASS V. Agricultural clubs, embracing the work of—
- (1) Rural women's clubs.
 - (2) Boys' and girls' agricultural clubs.
 - (3) Rural study clubs.
 - (4) Agricultural students' unions.
- CLASS VI. Miscellaneous, embracing the work of—
- (1) The Grange.
 - (2) Civic associations.
 - (3) The agricultural press.
 - (4) Libraries.
 - (5) Miscellaneous agricultural associations (stock, dairy, horticulture, etc.).
 - (6) Industrial departments of transportation companies.

ADDITIONAL WORK OF THE FARMERS' INSTITUTE SPECIALIST.

In addition to that which has been indicated in the foregoing report the institute specialist visited officially during the year 11 States and delivered 20 prepared lectures besides a number of informal addresses and has acted as secretary-treasurer of the American Association of Farmers' Institute Workers:

In addition to his annual report he prepared for the printer copy for the following publications: List of State Directors of Farmers' Institutes and Farmers' Institute Lecturers, and Legislation Relating to Farmers' Institutes in the United States. He also aided in the editing of the Proceedings of the Tenth Annual Meeting of the American Association of Farmers' Institute Workers and the Course in Cheese Making for Movable Schools of Agriculture.

The list of correspondents has increased until now there are over 14,000 names of individuals with whom correspondence is conducted. These lists are classified according to the interests with which the individuals are severally identified.

THE STATE REPORTS.

As the institutes develop, changes of greater or less importance occur in the methods pursued by the several States in conducting their work. In order that these changes may be known and recorded the following brief statements are given under the names of the respective States and Territories calling attention to the features of the institute work in each State and Territory that are worthy of note and likely to prove of value for present information and for future reference:

ALABAMA.

Institute director.—C. A. Cary, professor of veterinary science, Alabama Polytechnic Institute, Auburn.

The legislature of Alabama has made no provision for organizing or maintaining farmers' institutes. The work at present conducted is wholly voluntary and is by the board of trustees of the Polytechnic Institute and of the agricultural experiment station. This board provides for the expenses of the institutes from college and station funds and appoints the director, who is charged with organizing and conducting the work. The board also grants leave of absence to members of the college faculty and of the experiment station staff to give instruction in institute meetings.

During the year fourteen of these instructors participated in this work. The subject of ridding the State of cattle ticks, and thereby of the tick fever, was made a leading topic of institute discussion. An annual round-up, known as the farmers' institute and summer school, was held under the auspices of the Polytechnic Institute at Auburn, in July. The school was continued through 18 sessions and had an average attendance of 337 persons. This is the third yearly meeting of this character that has been held. The degree of interest is indicated by the attendance this year of 207 over that of 1903, and of 92 over that of 1904.

Institute work in Alabama differs from that in most of the Northern States, in that it is distributed throughout all of the months of the year. During last year 85 sessions of institutes were held, with an aggregate attendance of 3,744. In addition to the college and station force ten lecturers were brought in from other States to assist in giving instruction, all of whom were experts in some department of agricultural industry. The small amount of money at the disposal of the State director has greatly interfered with and limited his work, only \$600 being available for institute purposes last year.

Institutes for colored people have been conducted under the direction of the Tuskegee Normal and Industrial Institute. The lecture service is performed chiefly by the members of the faculty of the

Industrial Institute and is paid for out of the funds of this institution. The chief work in this direction, however, is at an annual convention or round-up meeting, held at the institution and continuing for two weeks, at which a number of teachers are brought from outside of the State to give instruction.

The failure of the State to make appropriation for institute purposes in Alabama has greatly retarded the development of the work, and it can not be greatly increased or improved until the legislature recognizes its obligation to assist this form of instruction as conducted both by the Agricultural College at Auburn and the Industrial Institute at Tuskegee.

ALASKA.

Institute director.—C. C. Georgeson, special agent in charge of agricultural experiment stations, Sitka.

Agriculture in Alaska can scarcely be said to have reached the institute stage. The districts adapted to farming are widely separated and sparsely settled, making it difficult to do more than confer with and give advice to individuals. This is done by the special agent in charge of the agricultural experiment station at Sitka as he visits the various sections in the interest of his experiment and demonstration work.

ARIZONA.

Institute director.—R. H. Forbes, director of agricultural experiment station, Tucson.

Institute work in Arizona the past year consisted in a series of lectures delivered in an academy at Thatcher, supplemented by side trips to neighboring towns and settlements in the evenings. Twenty-one sessions were held, in this way reaching about 1,300 persons. The institutes are under the control of the regents of the university, who have placed the director of the agricultural experiment station at Tucson in direct charge of the work. The lecturing is almost wholly by members of the experiment station staff, aided by local speakers residing in the vicinity of each meeting.

A number of visits were made during the year to the public schools and lectures delivered before the children and teachers upon nature-study subjects. The leading topic of interest for the Arizona ranchmen is water. The moisture conditions determine the location of every farm, and the securing of an adequate supply of water is consequently of paramount importance in Arizona agriculture. The storage of a sufficient supply and the economic use of water furnish the principal subjects of discussion.

ARKANSAS.

Institute director.—W. G. Vincenheller, director of agricultural experiment station, Fayetteville.

Arkansas held 42 sessions of farmers' institute meetings during the year, with an attendance of 7,150 persons, and at a cost of about \$400. The lecturers were members of the experiment station staff, and received no compensation additional to their regular salaries.

The leading subjects discussed were fruit culture, forage crops, and dairying. There has been no recognition of the institutes by the State, consequently, all that has been done has been by the agricultural college and experiment station, with some assistance from the National Department of Agriculture. All of the meetings held were upon special request of the various communities, and a much larger number of invitations were received than it was found possible to meet.

CALIFORNIA.

Institute director.—E. J. Wickson, acting director, agricultural experiment station, Berkeley.

Owing to differences in local climates and leisure seasons in various localities, institutes in California are held every month in the year. The director, who is a university officer, is aided by one assistant superintendent of institutes and two conductors, who have charge of the work in the field.

Last year 272 sessions of institutes were held, in which 22 State lecturers and 197 local speakers participated. The university and experiment station contributed 10 members from their faculty and staff who contributed one hundred days to institute teaching.

A State round-up meeting continuing for 8 sessions was held at Berkeley, with an attendance of 2,500 persons. This meeting has been very successful in interesting the farmers of the State in the agricultural college and experiment station and in popularizing and improving the institute work.

The attendance last year at the general institutes was 22,861 and the cost was \$9,000, of which \$6,000 was from the State appropriation and \$3,000 from the general fund of the University of California. A new feature of the work for the year was the formal and organized cooperation of the institutes with the State Teachers' Association, whereby a farmers' institute section was organized in the annual State Teachers' Convention. For the coming year this representation is to be extended to provide a section on farmers' institutes in every district teachers' association. The school teachers of California are enthusiastically in favor of the institute and are doing all that they can to promote its interests.

A brief report of the institute proceedings is prepared each year by the State director and 12,500 copies are published and distributed by the experiment station. Much of the instruction given in the institute is special. Viticulture, for example, was made a leading topic last year in the grape-growing districts. In other sections devoted to special crops a similar method is pursued and the consideration of these crops is made a special feature, extending through all of the institutes of that particular section.

A lady lecturer on domestic science was regularly employed last year, and some entire sessions were devoted to that subject with the effect of increasing the interest and greatly extending the usefulness of the institutes.

COLORADO.

Institute director.—Fred P. Johnson, superintendent of farmers' institutes, Denver.

The first appropriation for farmers' institutes ever made in Colorado was in April, 1905, and became available the following August. The amount was \$8,000 to cover two years and to be expended under the direction of the State board of agriculture, which is also the governing board of the State Agricultural College. On the 1st of August, 1905, Mr. Fred P. Johnson was appointed superintendent of farmers' institutes and since that time the work has been under his supervision, assisted by, and in cooperation with, the dean of the faculty of agriculture in the Agricultural College.

The work during the year has been largely in the way of organization and instruction. For this reason most of the time at the institute has been given up to the visiting lecturers. The usual method has been to introduce a subject in a brief talk of fifteen or twenty minutes and then induce the audience to ask questions and secure addresses from local men covering their experiences along the lines of the subjects under discussion. At the evening sessions, lectures illustrated by a stereoscope are frequently given and at others the audience is divided, the women and men holding separate sessions. Another feature that has proven very helpful has been that of outdoor stock-judging lectures, at which stock is brought into a ring and their points discussed by the lecturer and questions asked by the audience. Another feature just introduced, is that of small institutes on farms taking the people directly into the field and discussing the subjects there in the midst of practical illustrations. The director has also held normal institutes in which the meetings continue for four or five days, consisting principally of field work and lectures upon specified topics which are thoroughly exhausted during the institute. For these institutes the director requires that at least twenty farmers shall agree to attend all of the sessions and provide facilities for reaching the fields. This is a departure from the old methods in conducting normal institutes and its progress will be watched with interest.

It is expected that two corps of lecturers will be organized for the coming year. The basis for the lecture force has been the agricultural college and the experiment station men. Gradually some excellent workers are being developed among the farmers of the State. In order to encourage the attendance and assist in the advertising, the director expects for the coming year to require a petition signed by some 50 to 200 names requesting the institute and agreeing to attend the sessions. These petitions will be circulated in advance among the farmers for signature.

One hundred and twenty-three sessions of institutes were held last year, with an attendance of 16,675, at a total cost of \$3,300. In addition to these, 5 independent institutes were held, with an estimated attendance of 3,000. There were 26 sessions of women's institutes held in connection with the regular meetings. The college and station men contributed two hundred and ninety-five days of time to the work. An account of the proceedings of the institutes will be prepared, and an edition of 10,000 published and distributed.

CONNECTICUT.

Institute directors.—James F. Brown, secretary State board of agriculture, North Stonington; J. G. Schwink, jr., secretary Connecticut Dairymen's Association, Meriden; H. C. C. Miles, secretary Connecticut Pomological Society, Milford.

The division of the institute work in Connecticut between three distinct organizations is unique in farmers' institute management in this country. The State board of agriculture, the State Dairymen's Association, and the State Pomological Society, through their respective secretaries, have each held institutes devoted largely to the special lines of work which each organization represents. No report has been received of what has been accomplished by the State board of agriculture during the year. The other two societies, however, have been active in institute work. The dairymen's association held 39 sessions of regular institutes in addition to its annual convention, consisting of 5 sessions. The regular institutes were attended by 3,345 and the annual institute by 3,300. Forty-two speakers were present at the institutes of this society and delivered 96 addresses. Fifteen hundred dollars was expended in carrying on the work.

The Connecticut Dairymen's Association was organized about twenty-five years ago to develop and improve the dairy interests of the State. Its present membership is about 460. For the past twenty years the association has received an annual appropriation from the State to aid in carrying on its work, but owing to the popular demand for more institutes the sum was found to be insufficient, and \$500 additional was granted by the last legislature. The influences that have gone out from these meetings are now seen in all parts of the State. New barns and stables have been erected after

the most approved methods of sanitary construction; dairy herds are more economically and intelligently fed and cared for than formerly; silos have been built; the science of breeding and rearing dairy cows is receiving greater attention, and the preservation of soil fertility is more carefully studied. The association cooperates with the granges and farm clubs of the State in its meetings, and is employing the leading experts in dairying as instructors in its institutes.

The Pomological Society has been doing a similar work for the fruit interests of the State. This society held 44 sessions of institutes, with an attendance of 1,550 persons, and at an expenditure of \$325. One independent institute was held with an estimated attendance of 2,500. The State Agricultural College and the experiment stations aided in the teaching by sending 11 of their instructors, who contributed forty days of their time to this service. Special attention was directed in the institutes this year to the control of the San José scale. Institutes were held in all of the eight counties of the State, most of them being in cooperation with the local granges. Most of the meetings were day sessions, the attendance at the evening sessions being found to be unsatisfactory.

The institutes are exerting a very helpful influence upon the agriculture of the State, and they will doubtless continue for some time to divide their work among the three agricultural organizations heretofore in charge. It is believed, however, that ultimately the State will find it necessary to make a change in its system by combining its institute forces and enlarging its efforts with a central official in charge. This has been found most efficient elsewhere in institute organization, and no doubt it will be adopted in Connecticut as soon as educational agencies become the dominant feature in institute effort.

DELAWARE.

Institute director.—Wesley Webb, secretary of the State board of agriculture, Dover.

Institutes were held in all of the three counties of Delaware last year. In Kent and Sussex counties the institutes were arranged by the State director, and in Newcastle County by the executive committee of the county institute.

The number of institutes held was 18, made up of 40 sessions. The total cost for the year of the institute work was \$700. The experiment station furnished one speaker for twelve days and the State director supplied seven additional lecturers. A report of the institutes is published each year in the annual report of the State board of agriculture and about 5,000 copies are distributed. The law requires that an institute organization shall be effected in each county and appropriates \$200 to each for their maintenance. The failure of any county to hold an institute causes it to forfeit its appropriation for that year.

FLORIDA.

Institute director.—R. W. Clothier, professor of agriculture, University of Florida, Gainesville.

The institutes have been temporarily suspended in Florida, owing to the failure of the legislature to make appropriation for their support. This was due to a readjustment and reorganization of the educational work of the State which was quite radical. The institute work in previous years was under the direction of the agricultural college, but the reorganization referred to, in which the State legislature abolished the university, together with five other educational institutions and provided for a university and a woman's college, a normal school for colored students and an institution for the deaf, dumb, and blind in their stead, placed all under a single State board of control. This board has recently determined to remove the university from Lake City to Gainesville.

These changes in the educational management have for the time prevented the university from continuing the work in institute directions which it has formerly conducted. As soon as the university becomes settled in its new location, the institute work will doubtless be resumed and proper appropriation for its maintenance be made by the State.

GEORGIA.

Institute director.—H. C. White, president Agricultural College, Athens; Harvie Jordan, field agent in charge of farmers' institutes, Atlanta.

The legislature of Georgia in 1904 appropriated \$2,500 to the University of Georgia for farmers' institute work and has continued this appropriation each year since that date. This year the number of institutes fell off from 44 to 21 and the attendance from 18,000 to 4,500. No report has been received explanatory of this sudden change.

There were six State speakers on the corps of lecturers, three of whom were from the experiment stations. No independent or special institutes are reported, neither were women's nor boys' sessions held. The actual expenses for institute work for the year were \$2,500. The organization is by senatorial districts and not by counties.

HAWAII.

Institute director.—Jared G. Smith, agent in charge of agricultural experiment stations, Honolulu.

Institute work in Hawaii last year consisted of four quarterly meetings, each continuing two days. These meetings were attended by about 300 persons and were conducted by the officers of the agricultural experiment station.

Since the organization of the farmers' institute of Hawaii, the annual meetings have been held at the Kamehameha School for Boys, which has an agricultural course in connection with mechanical training. The students all attend this annual farmers' institute.

During the last several meetings of the farmers' institutes of Hawaii, an effort has been made to have the subjects of the several addresses of each meeting pertain to a single definite branch of agriculture, rather than to discuss subjects widely removed from each other. In furtherance of this, special topics are arranged in advance for discussion in the open meeting, giving definite notice to and sufficient time for preparation by those who desire to participate in the discussions.

IDAHO.

Institute director.—H. T. French, director Agricultural Experiment Station, Moscow.

The difficulties connected with the holding of farmers' institutes in Idaho are principally geographical. The peculiar conformation of the State, the mountain chains which divide it, and the transportation facilities, together with the sparse population, all contribute to making the work time-consuming and expensive. Were it not for the fact that the railroads furnish free transportation to institute workers it would be impossible with the \$1,000 appropriated for institute work to carry it on creditably. In one instance the institute director was compelled to travel over 1,000 miles to reach the institute locality, and that single trip in which comparatively few institutes were held involved over 2,000 miles of travel.

Twenty-one institutes were held last year, consisting of 105 sessions. They were attended by 7,875 persons. There was an independent institute with an attendance of 150 persons. A very satisfactory normal institute, attended by about 500 persons was held at Caldwell. In connection with this normal institute was a woman's department which was well attended and developed a great deal of interest. The pronounced success of this meeting has led to arrangements for holding another in a different section of the State. Invitations have come to the director from a number of points requesting that the normal institute be held in their locality and offering to provide a meeting hall and pay all of the other necessary expenses.

There were three lecturers upon the State force and 26 local speakers assisted in giving instruction. The agricultural college and experiment station together sent out 9 men at different times to deliver lectures who together contributed about forty days of service.

The appropriation for institute purposes amounting to \$1,000 per year is made to the board of regents of the University of Idaho, who turn over this appropriation to the director of the agricultural experiment station, who is also director of farmers' institutes, to be used by him for institute purposes.

ILLINOIS.

Institute director.—F. H. Hall, superintendent of farmers' institutes, Aurora.

The institute system of Illinois is altogether different from that of any other State. It is known as the Illinois Farmers' Institute, and is managed by a board of directors, consisting of the State superintendent of public instruction, the professor of agriculture of the University of Illinois, the president of the State board of agriculture, the president of the State Horticultural Society, the president of the State Dairymen's Association, and one member from each Congressional district of the State, selected by delegates from the district present at the annual meeting. This board of directors elects a secretary and superintendent of farmers' institutes. In the present instance these offices are combined in one individual.

The county institutes are the units in the State system, and are regularly organized under a State law, and are each entitled to an appropriation of \$75 per year contingent upon their holding one or more institutes of not less than two days' duration, and of which proper public notice has been previously given.

The employment of speakers is altogether in the hands of the local institutes as well as the duty of making arrangements for holding the institute, such as selecting the location, the preparation of the programme, and securing entertainment for institute speakers.

Last year 108 institutes, composed of 667 sessions, were held with an attendance of 79,428 persons. The State University contributed 30 men for giving instruction who devoted in the aggregate two hundred and thirty-nine days to this work. There were six independent institutes held, with an attendance of 1,440 persons, and there was also the round-up or annual meeting of 8 sessions with an attendance of 6,000.

All of the trunk lines of the railroads provided special trains free of charge, which were run over their several lines. These trains were equipped by the State University, so far as lecture force and illustrative material were concerned. The train furnished by the Chicago, Burlington and Quincy Railroad was out eight days, and reached by actual count 16,630 people. The Illinois Central was out eleven days, and reached 20,817 persons. The Wabash furnished a train for three days, during which time about 1,000 people were met. The interest aroused by these trains was much greater than had been anticipated, and was manifested not merely by the attendance, but by applications that were afterwards received by the university and the agricultural experiment station for literature. Reference was made by the applicants to statements made by the lecturers from these railroad trains.

A feature of the Illinois institute is the boys' class. In each institute there is a boys' class devoted wholly to giving instruction to boys and to exercises in which they are specially interested. Corn judging, stock judging, the reading of papers which the boys have prepared, speaking selections, undergoing examinations, etc., are some of the exercises.

About one-half day of each institute is conducted by the women. There are domestic science associations in sixty of the counties which hold regular meetings in addition to the farmers' institutes. The effect of these associations has been to greatly strengthen the institute work particularly in its relation to the farm home.

Corn-judging contests for boys were held in twenty-nine counties last year and the prospects are that upward of fifty counties will adopt them in the coming year. This method of interesting young people was devised by Hon. A. P. Grout, of Winchester, Ill. It provides for a test of skill in the judging of corn, the premium being a trip to the agricultural college for two weeks' instruction in subjects of practical importance to young men on a farm. Last winter about 75 boys were sent to this winter short course at the college through these contests, and as many more went at their own expense, who became interested through the institutes. One county sent one boy and paid half of the expenses of another, and another county offered the short-course premium to one boy in each township in the county.

This year bread-judging contests are open to girls in a few counties, the premium being a trip to the agricultural college with two weeks' instruction in household science.

The Business Men's Association in Scott County offered a prize of \$10 to one boy in each of the thirteen election precincts of the county toward paying his expenses to the winter short course at the agricultural college. The method adopted in making the selection last year was to distribute a 14-page bulletin on Soil Fertility among the young people in the public schools, who were requested to study the bulletin and report at the next farmers' institute meeting for examination, the one standing highest in each precinct to receive the prize. Fifteen boys, representing nine precincts, applied for examination, and one from each precinct was awarded the premium.

There was appropriated to the farmers' institute last year in Illinois \$30,281.55, the largest amount given to institute work by any State. This is received from the following sources: From the State for use of the local institute organizations, \$7,650; from the State for the use of the State board of agriculture and for the payment of the salary of the superintendent of farmers' institutes, \$7,500; from the State for the payment of the salary of the secretary, \$2,000; from the county board of supervisors for institute purposes, \$2,555; from donations, membership dues, and sale of exhibits, \$10,576.55.

Twenty thousand copies of reports of the farmers' institute proceedings are published and distributed each year.

INDIANA.

Institute director—W. C. Latta, professor of agriculture, Purdue University, Lafayette.

That the institutes in Indiana are making substantial progress is shown to some extent at least by the fact that the number of sessions has increased from 883 in the year ended June 30, 1905, to 918 in the year ended June 30, 1906. The average attendance at each session in 1906 was 141, and the amount appropriated for institute purposes was \$12,500.

A conference of the institute workers held each year at Purdue University has materially aided in advancing the institute work. At the conference held in October, 1905, special attention was given to the consideration of methods for interesting boys and girls in the institutes. In several counties the county superintendents of schools in cooperation with the county chairman of the farmers' institutes organized boys' and girls' clubs for growing corn, making bread, etc., the products to be exhibited at the institute in competition. Premiums were offered by the business men of the districts interested and many boys were induced to enter in competition.

In compliance with numerous requests by county chairmen a trained domestic-science teacher was employed last year for the entire institute season to lecture upon food, household management, home making, and kindred topics. Seventy-two institutes were attended by this instructor, and the lectures were received with great interest by almost every locality visited by the domestic-science teacher. This year requests have been sent in to the State director for similar instruction in the future.

A number of independent institutes were held with a reported attendance of about 100 in each. Women's meetings were also held, usually in connection with the regular institutes. About 20 separate sessions and a like number of special sessions were conducted by women.

The agricultural college and experiment station furnished 5 lecturers, who gave twenty-seven days of their time to the institutes. In addition to these there were 44 other lecturers in the employ of the State director and about 50 local essayists and speakers. About 1,000 copies of the annual report of the institute work are printed and distributed each year. The reports do not give the proceedings at the several institute meetings, but present statistical information showing the condition and progress of the institute work for the preceding year.

IOWA.

Institute director.—J. C. Simpson, secretary State board of agriculture, Des Moines.

In Iowa the institutes are held by the county institute organizations independently of each other and without State supervision. Each county society, however, is required to file a brief report in the office of the State department of agriculture if it desires a voice in the annual agricultural convention. Before any local institute society can receive its appropriation from the county treasurer, amounting to a sum not to exceed \$75 annually, the managers must file affidavits, with the bills of actual expenses attached, with the State auditor, to be approved by him.

The reports as far as they have been sent in this year to the secretary of the department of agriculture show that 402 sessions of institutes were held during the year, having an attendance of 66,959. The total expenses for the 69 counties reporting out of a total of 99 in the State were \$8,096.06. An annual meeting called a State Farmers' Institute was held in Des Moines in December, at which there was an attendance of about 200 persons. Some of the best papers at the institutes are collected annually by the secretary of the board, and are published in the Yearbook of agriculture, issued by the agricultural department.

KANSAS.

Institute director.—J. H. Miller, superintendent of farmers' institutes, Manhattan.

In Kansas, in addition to the State appropriation of \$2,000 annually made to the State agricultural college for farmers' institute purposes, each county institute is entitled to \$50 annually, for meeting its local expenses. Five hundred and twenty-two sessions of institutes were held last year, with an attendance of 27,300.

The agricultural college and experiment station at Manhattan have taken very active interest in this work. Twenty-one members of their force of teachers and experiment station experts were engaged in lecturing before institute audiences during the past year. Their work was supplemented by a force of local speakers numbering 406, who either read papers or delivered addresses. In addition to the regular institutes there were 14 that were independent, having a reported attendance of 8,000. A corn and wheat special was run by the Rock Island Railroad for twelve days. During that time the train made 135 stops. It consisted of one baggage car, two lecture cars, and one living car. Four members of the agricultural experiment station force accompanied the train as lecturers, and during the period delivered 236 addresses and met 10,000 people.

County institutes have been regularly organized in 85 counties, and boys' corn contests were held in over 50 counties, which included in their membership about 6,000 boys.

KENTUCKY.

Institute director.—Hubert Vreeland, commissioner of agriculture, Frankfort.

Under a recent act of the legislature of Kentucky it is made the duty of the commissioner of agriculture, labor, and statistics to see that a "farmers' and an industrial institute" of at least two days' duration is held each year in every county in the State. Each county institute is entitled to send one or more delegates to attend a State institute of at last "three days' duration." These delegates are empowered to elect members of the State board of agriculture, forestry, and immigration. An appropriation of \$15,000 per year was made for farmers' institute work. The new law does not go into effect, however, until 1907.

During the year ended June 30, 1906, 25 institutes were held; 24 were of two days' duration, making a total of 122 sessions. The average cost of these institutes was about \$70.

The director is arranging for a large increase in the number of institutes to be held next year. With this in view he has divided the State into four institute districts and intends to keep four corps of men in the field during the institute season. With the increased appropriation and the better organization of the work the institutes can be carried into every county of the State and be thoroughly equipped with experienced teachers. The general round-up meeting of agricultural people held under the auspices of the State board of agriculture convened at Frankfort in February. This was the first State institute ever held in Kentucky, and was well attended by representative farmers from all over the State and continued in session for three days.

The institutes have now been organized in many of the counties of the State and all that will be necessary in the future will be to see that the State lecture force is thoroughly equipped for its work and that the institute meetings are well advertised in the several communities.

LOUISIANA.

Institute director.—Charles Schuler, commissioner State board of agriculture and immigration, Baton Rouge.

The institute work was greatly interfered with last year in Louisiana by the outbreak of yellow fever in July and the consequent quarantining of various sections of the State. Only 13 institutes were held, consisting of two sessions each. The total attendance was 2,657.

The amount appropriated for institute purposes was \$2,000, which was used chiefly for defraying the traveling expenses of the State lecturers, who for the most part are from the faculty of the agricultural college and experiment station staff. Twenty-two local speakers addressed institute meetings, in addition to the college and station

men. The leading features in the work this year were domestic science and dairying. An expert poultryman was also on the lecture force for almost the entire period.

MAINE.

Institute director.—A. W. Gilman, commissioner of agriculture, Augusta.

During the past year the University of Maine, the State board of agriculture, the Bangor and Aroostook Railroad, and the Maine Central Railroad Company, working in conjunction, ran two special trains. The trip over the Bangor and Aroostook Railroad occupied eleven days, 31 meetings being held, with an attendance of about 20,000 persons. The other trip over the Bangor and Maine Railroad occupied fifteen days, with 45 meetings and an attendance of 35,000.

The trains consisted of three baggage cars, in which were placed by the college of agriculture and the experiment station exhibits showing appliances for dairy work, poultry rearing, orcharding, gardening, seed testing, and educational displays of fertilizers, feeds, a veterinary exhibit, and forestry and paper mill exhibits.

At least two hours were spent at each stop, during which time two or three lectures were given from the station platform or in the cars, and the people were shown the practical use of the appliances on the train.

In addition to this special train service, there were 50 one-day institutes held, consisting of 102 sessions, with a total attendance of 6,967 persons. The amount appropriated for institute purposes, including the salary of the superintendent, was \$5,000. Two institutes were held in each county as required by law, and the remainder were apportioned among the counties according to the extent of their agricultural interests.

There were 10 independent institutes held with an average estimated attendance of 125. A summary of the proceedings and a few selected papers that had been read before the institutes were published in the annual report of the department, of which 6,000 copies were printed. About 40 local speakers addressed the institutes, besides 17 lecturers employed by the State director. Two members of the faculty of the University of Maine contributed twenty days of service as lecturers.

MARYLAND.

Institute director.—W. L. Amoss, director of farmers' institutes, Benson.

Institute work in Maryland the past year was quite diversified in character. A railroad corn special, a strawberry special, a sweet potato special, a tobacco special, a milk special, and a steamboat special were sent out at various times in the interest of the several products indicated by these names. The diverse character of the

farming interests of Maryland, by which certain localities are largely devoted to growing special crops, render it necessary to vary the instruction to suit each particular district. About 3,100 people were met and given instruction by expert specialists who accompanied these special trains and the steamboat special. Forty-nine regular institutes were held in addition to the railroad meetings, attended by 10,762 persons and consisting of 125 sessions.

One institute for colored people was held, with an attendance of about 150. This meeting was a pronounced success; the papers and discussions were both practical and helpful.

The institute undertook this year to cooperate with the agricultural experiment station in exhibiting agricultural products at several county fairs. An effort was made to mingle entertainment with instruction, so as to secure the attention of visitors and take advantage of the opportunity at the same time to offer some wholesome advice. A tent was fitted up with comfortable seats and supplied with a corps of institute representatives. Use was made of the phonograph, the stereopticon, and large colored photographs. These were selected with a view both to providing entertainment as well as instruction. Popular airs were rendered, followed by a brief address by the phonograph and the exhibit of stereopticon views, together with explanations by the operator in charge.

As an expedient for meeting the sensational fakir on his own ground, the method seemed to be fairly successful. Just how far an educational institution should go in this direction is a matter that experience only can determine. Its value in any case will always be dependent upon the judgment exercised in the selection of material for presentation.

An important experiment was conducted by the institute director in the direction of introducing agriculture into the public schools. A capable teacher of agriculture was sent into one of the leading counties one day each week to visit the rural schools and lecture before the children upon some phase of agricultural science or practice. The selection of the schools in which the instruction was given was found, after a trial, to have been on some accounts unfortunate, and the results, consequently, were not up to the expectation of the friends of the movement, although the great possibilities that lie in this direction were quite clearly demonstrated.

MASSACHUSETTS.

Institute director.—J. L. Ellsworth, secretary State board agriculture, Boston.

There were 153 sessions of institutes held last year in Massachusetts, attended by 19,125 persons. The average attendance at each session was 125. The work was conducted at a total cost of \$1,760.44,

or at the rate of \$11.51 per session. A feature which gave great satisfaction, and which it is proposed to greatly extend next year, was the field meeting. These meetings were held, as the name indicates, out in the fields, the lecturers using the growing crops for demonstration purposes. Great interest was awakened among the farmers by this method of instruction, as is evidenced by the fact that one meeting was attended by upward of 1,000 persons.

A better farm special railroad train was run over the Boston and Maine system, reaching about 6,000 people. It made twenty-five stops in Massachusetts, and at each stop lectures were delivered and exhibits inspected. In Massachusetts all of the time of the institute is given to the State lecturers. This year there were 13 on the instruction force, all of whom were from the agricultural college and the experiment station.

MICHIGAN.

Institute director.—L. R. Taft, superintendent farmers' institutes, Agricultural College.

The institutes of Michigan for the year ended June 30, 1906, surpassed those of the previous year in the number of sessions held by 107 and in the number of institutes by 65. The attendance was 122,573, being an average of 128 persons per session. There were also a number of institute picnics held and special trains run. The trains ran for nine days, making forty-nine stops and reaching about 5,000 people. In the general institutes 51 sessions of these meetings were women's sessions—a feature of Michigan institutes rapidly developing. The appropriation for institute work was \$7,500 by the State board and an equal amount additional for local expenses. Thirteen members of the faculty of the agricultural college and of the experiment station gave one hundred days of time to lecturing in the institutes. Meetings were held during the year in all of the counties excepting ten. The number of one-day institutes was 259, the largest number of one-day institutes held in any State.

A meeting of the institute lecturers, continuing for a week, was held at the agricultural college. The purpose was to bring the instruction force in touch with the college and experiment station work and to give them, through lectures and demonstrations, the latest information and discoveries in agricultural science. These meetings were well attended, and the interest manifested in the course of instruction was all that could have been desired.

Reports containing statistics of attendance, lists of officers, and the proceedings of the annual meeting, together with such papers of excellence as had been read at the county institutes, were edited by the State superintendent and 9,000 copies published and distributed.

MINNESOTA.

Institute director.—O. C. Gregg, director of farmers' institutes, Lynd.

In Minnesota a new feature in institute work was introduced last year. Short courses in agriculture, continuing for a week, were given at various points. Before arranging for such a course in any locality pledges from a considerable number of farmers were first secured agreeing to attend all of the sessions. The meetings are reported to have been quite successful, and it is proposed to continue and extend them the coming year.

A railroad special "good-seed train" was equipped and run, reaching about 900 persons and making twelve stops. The regular institutes numbered 105, composed of 238 sessions, with an aggregate attendance of 51,211. The total cost of the institutes was \$20,200, of which \$18,000 was from the State appropriation and \$2,200 from advertising in the institute annual. There were ten State lecturers employed, four being from the agricultural college. An institute annual, containing papers and addresses delivered at farmers' institutes, was prepared and published by the institute board of administration, and 35,000 copies were distributed.

MISSISSIPPI.

Institute director.—E. R. Lloyd, director of farmers' institutes, Agricultural College.

The yellow-fever epidemic which broke out in the South, and the quarantine which followed in July, 1905, interfered seriously with institute work in Mississippi. Notwithstanding this, 220 sessions of institutes were held, with a total attendance of 10,000 persons. The agricultural college and experiment station men performed about 75 per cent of the institute work. Eighteen of these instructors taught in the institutes this year, contributing three hundred and sixty days of their time. This is the highest number of days given by a land-grant college to institute work in any State this year.

The present appropriation of \$3,000 is altogether inadequate for supplying institutes in sufficient number to meet the demand. During the year as many as eight requests came in from a single county for institute meetings. Most meetings in Mississippi are held during July, August, and September. At this season of the year most of the crops have been "laid by" and farmers have more leisure time for attendance upon the meetings than at any other season. This is also the vacation period of the college and the experiment station men, who compose the corps of institute lecturers.

A round-up meeting of three days was held at the agricultural college, with an attendance of about 200. A diversified farming special was run over the lines of the Illinois Central and the Yazoo and Mississippi Valley Railroad systems during the year. The train con-

sisted of two day coaches fitted with raised platforms for speakers, a baggage car, a diner, and a sleeper. The entire train was furnished by the railroad companies without cost to the institute management. The train made seventy-five stops in the State, and the attendance upon the lectures at these stations numbered 9,127.

A feature of the institute, as conducted this year, worthy of notice is that of utilizing the spare time before the institute opens in the morning and after it closes in the afternoon in visiting near-by farms and conferring with the farmers respecting the introduction of better methods in their systems of agriculture. In some instances practical demonstrations were given on individual farms. Among these were demonstrations of the method of terracing and draining land. The effect of this intermingling in a social and educational way has been to establish a feeling of confidence among the farmers in the ability of the institute teachers to give practical and useful instruction.

MISSOURI.

Institute director.—George B. Ellis, secretary State board of agriculture, Columbia.

The total number of institutes held in Missouri during the year was 156, an increase of 52 over the previous year, when a technical decision by the State auditor prevented the use of \$1,900 of the State appropriation. One hundred of these meetings were for one day, 55 for two days, and 1 for three days, making a total of 410 sessions with a total attendance of 36,900, or an average of 90 per session. Twenty-eight lecturers were upon the State institute force, of whom about half were from the agricultural college and the experiment station.

The three leading topics for discussion were "Corn improvement," "Better roads for Missouri," and "Dairying." Of these "Corn improvement" was taken up at practically every meeting.

The funds available were \$5,000, entirely derived from State appropriation. A portion of this amount is available for printing reports of the meetings, the proceedings of which are published in part.

MONTANA.

Institute director.—F. B. Linfield, director agricultural experiment station, Bozeman.

Montana has over 145,000 square miles of territory and had in 1900 a population of 243,329. The sparsely settled condition of the country, its great extent, and the lack of railroads in many sections make the institute problem one of considerable difficulty. The State appropriated \$4,000 per year for institute purposes. At least one institute is required to be held in each county each year. For convenience, the State has been divided into institute districts composed

of several counties. Each district is visited by a corps of institute lecturers, who hold meetings in each of the counties composing the district. The local county organizations are required to provide suitable halls and must furnish them with light and heat and bear all necessary advertising expenses.

Last year 133 sessions of institutes were held, attended by 7,890 persons. Twelve independent institutes, with an estimated attendance of 345, were also held during the year. In addition to the regular institute work, a dairy instructor was sent out to give instruction and demonstrations in connection with the creameries of the State. The most of the instruction in the regular institutes is given by members of the faculty of the agricultural college or of the experiment station. Eight of these lecturers were employed this year for an aggregate of one hundred and ten days. Forty-two local speakers also assisted in the teaching.

A report of the proceedings of the institute is published annually, and 5,000 copies are distributed. A bulletin announcing the meetings and giving a list of the speakers is prepared and sent out each year to the various institute organizations and localities in which institutes are proposed to be held.

NEBRASKA.

Institute directors.—E. A. Burnett, director agricultural experiment station, Lincoln; Val Keyser, assistant superintendent farmers' institute, Fairbury.

The attendance at the institutes this year in Nebraska was greater than ever before. Seventy-two thousand eight hundred and ninety-four persons are reported as having been present. The number of institutes increased from 150 in 1904-5 to 160 in 1905-6, and the number of sessions from 480 in 1904-5 to 515 in 1905-6. At many places this season where meetings were held in the largest halls the town afforded scores of persons were turned away for lack of hall capacity. At other places overflow meetings were held and the exhibit rooms were thrown open.

The system combines local and central organization. No institutes are held except upon request, and the community is always expected to bear part of the expenses, generally amounting to the hall rent, cost of local advertising, and the entertainment of the speakers at hotels. The local organizations have a president, a secretary and treasurer, and a local committee to look after the expenses and the printing of the programme. The central office prints posters and special notices of the meetings and sends them out to the local secretaries and to the newspapers. The various railroad companies furnish free transportation to the speakers upon request to the central office.

The last legislature passed an act which became operative in July, 1905, authorizing the board of county commissioners of any county to defray the local expenses connected with farmers' institutes in that county not to exceed \$100 per annum in any county. Before any farmers' institute can take advantage of this appropriation it must be organized with a president, a secretary, a treasurer, and an executive board of not less than three members, and a signed membership of not less than fifty actual farmers; and the further provision is made that no money shall be paid for the expenses of any institute not held in cooperation with the University of Nebraska.

No round-up institute is held on account of the large popular meetings held by organized agriculture at the school of agriculture and experiment station at Lincoln, the third week of January in each year. All of the societies for the promotion of the different lines of agriculture meet at this time. In January, 1905, these societies held 31 different sessions, with a total attendance of over 2,000.

Good seed specials, accompanied by institute speakers, were sent out during the year from which 34,092 people were addressed. The total cost of the institutes was about \$8,607. Six thousand dollars of this was from the State appropriation and \$2,607 for meeting the bills for local expenses reported and paid by the county commissioners. The agricultural college and experiment station sent 15 men as lecturers, who contributed one hundred and fifty days of time to the work.

The institutes of Nebraska are well organized and the system is worthy of careful study by other States.

NEVADA.

Institute director.—J. E. Stubbs, president Nevada State University, Reno.

No institutes were held during the year.

NEW HAMPSHIRE.

Institute director.—N. J. Batchelder, secretary State board of agriculture, Concord.

A farmers' institute meeting was held in every county in New Hampshire last year. There were in all 34 sessions, with an attendance of 3,000, at a total cost of \$2,100. There were 15 lecturers on the State force, 8 of whom were members of the agricultural college faculty. The institutes are held under general authority given by an act of assembly, which requires the secretary of the State board of agriculture "to make arrangements for, give public notice of, and, if possible, personally attend the farmers' meeting authorized by the board." The dates, places, and programmes of the institutes are arranged by the county members of the board in connection with the secretary, and notice of the meetings are printed one month in advance of their occurrence.

NEW JERSEY.

Institute director.—Franklin Dye, secretary State board of agriculture, Trenton.

In New Jersey last year special stress was laid in the institute meetings upon the necessity for the farmer being an educated man—an agriculturally educated man. The fact was emphasized that the chief reason why the earth has not yielded her fullest harvests is due to the stupidity or ignorance of those who have tilled the soil—that the soils have possibilities not yet reached and can only be developed by bringing to their treatment greater skill and more intelligent understanding and application of the forces that affect life and growth.

Eleven thousand six hundred and eleven persons were met and instructed in the institutes of the State last year. One hundred and sixteen sessions were held, not including the annual meeting of the board, which consisted of seven sessions and was attended by about 1,200 persons. There were nine speakers upon the force of lecturers, four of whom were from the agricultural college and the experiment station. The college and station men contributed sixty-six days of their time in lecturing before institute audiences. The total cost of the institute was about \$3,000, which was paid out of the \$8,000 appropriated to the State board of agriculture. Arrangements for institutes are made by the State director after conference with the county boards of agriculture and the local granges.

NEW MEXICO.

Institute director.—J. D. Tinsley, superintendent of farmers' institutes, Agricultural College.

There were no farmers' institutes held in New Mexico last year, owing to the failure of the Territorial legislature to grant an appropriation for their support. An effort will be made this coming winter to secure funds that will enable the work to be resumed. In anticipation of this Prof. J. D. Tinsley has recently been appointed superintendent of institutes, and he has already taken steps to organize local institute societies in the several districts. In addition to the regular institute work in which these societies will be expected to continue, experiments will also be carried on in cooperation with the agricultural experiment station. A very complete form of constitution and by-laws for an institute organization has been prepared and is being distributed for signature throughout the Territory.

NEW YORK.

Institute director.—F. E. Dawley, director of farmers' institutes, Fayetteville.

New York held 1,062 sessions of farmers' institutes last year, attended by 134,989 persons, or an average per session of 126. There were also held 23 independent institutes with an estimated attendance of 19,800. The annual appropriation for institute purposes is \$20,000.

The State lecture force has on its roll the names of 70 persons, and during the year about 400 other teachers, essayists, and local speakers assisted in giving instruction at the institute meetings. A two-weeks normal institute was held, one week at the experiment station at Geneva, and the next week at Cornell University. At this institute the State lecturers were expected to be present. The sessions were addressed by station and college men, each presenting and explaining the progress of agricultural science in his specialty during the year. Complete syllabuses of the lectures were printed and handed to the members of the normal class and special periods were set aside for their discussion.

The results of this method of instructing the lecturers and securing uniformity of statement in their teaching before institutes have been most satisfactory. Twenty-two agricultural college and experiment station men lectured before the institutes during the year, devoting in the aggregate two hundred and thirty days of time to this work. There were 120 sessions of boys' institutes held with excellent results. Each year 15,000 copies of institute proceedings are published and distributed, 10,000 copies through members of the legislature and 5,000 through the department of agriculture. Three special topics were made leading subjects in institute discussions for the year—rural schools, good roads, and alfalfa.

NORTH DAKOTA.

Institute director.—E. E. Kaufman, superintendent of farmers' institutes, Fargo.

Special seed trains were sent out in North Dakota this year, continuing on the road in the aggregate twenty-two days and making one hundred and fifty stops. At each stop lectures were delivered and specimens exhibited before audiences of farmers. Seventeen thousand six hundred and ninety-six persons were at these meetings. The stops were about three-quarters of an hour each, except that in the evenings meetings for from about half past 6 to half past 9 o'clock were held, after which the train would leave for the next place scheduled for the first hour the next morning. The lecturers were confined to one or two topics, illustrating them by specimens and in some cases by demonstrations. One of these trains was utilized as an "emergency special" to carry abroad, just before seeding, information respecting the treatment of seed to prevent rust. The plan was to cover as large a part of the wheat and flax growing districts as possible in the shortest time, thus endeavoring to induce as large a number of farmers as possible to treat their seed for the destruction of spores before planting.

The institute work in general was quite as successful as in previous years. One hundred and sixty-two sessions were held and 20,310 persons reached. The average attendance at each session was 125.

There was available for institute purposes \$6,379.07, of which \$5,577.16 was used. The appropriation by the State for the coming year is \$6,000. The agricultural college furnished four men from its faculty for institute service, who gave thirty-five days to the work. There was one independent institute held with an estimated attendance of 6,430, a general convention of the farmers of the State. Each year, 10,000 copies of an annual institute report are published and distributed.

NORTH CAROLINA.

Institute directors.—S. L. Patterson, commissioner of agriculture, Raleigh; Tait Butler, professor of veterinary science in North Carolina College of Agriculture and Mechanic Arts; field agent, Raleigh.

A determined effort was made through the farmers' institutes of North Carolina this year in the direction of the improvement of the homes of the country people. This took the form of women's institutes, 21 of which were held in a single month with an average attendance of 83. In starting this work many discouraging circumstances were encountered, chief among which was the spirit of conservatism that led the communities to look upon the women's institute as too great an innovation. Others were the indifference of the women themselves and the difficulty in getting suitable lecturers to address the audiences. At a number of the women's meetings the attendance was extremely small, but taken altogether the experiment was fairly successful and gave encouragement to conduct a similar experiment next year.

The general institutes were well attended, the attendance being 25,950 at 195 sessions, or 133 to each session. About \$5,500 was expended in conducting the institutes. This included the salary of the State director and a portion of those members of the agricultural department who aided in the work. The agricultural college and the experiment station contributed twelve men, who gave one hundred and nine days of their time to lecture service. Three independent institutes were held, with a total attendance of 1,000. A round-up farmers' convention, held at Raleigh, continued through eight sessions with an attendance of 400. Thirty thousand copies of institute proceedings are published and distributed to regular mailing lists of the State department of agriculture each year.

OHIO.

Institute director.—T. L. Calvert, secretary State board of agriculture, Columbus.

There was a modification of the institute law in Ohio last year, by which the apportionment of the money raised for institute purposes under the millage tax is appropriated more simply and directly. The old law based the apportionment on the number of inhabitants of each county, as shown by the last census, directing that a sum equal

to 3 mills on each inhabitant of a county be paid to the president of the State board of agriculture and a like sum to the president of the farmers' institute society in the county where but one such society exists, and where two or more exist the amount was to be equally apportioned between them.

The new law fixes the amount to go to the president of the agricultural society at \$125 from each county, and \$31.25 to the president of each institute society in a county holding meetings under the auspices of the State board. There is a provision that the entire sum shall not exceed \$250 for any one county.

Last year 1,225 sessions of institutes were held, with an attendance of 81,816, the largest number of sessions held by any State. The appropriation for institutes was \$17,629.89, and the average cost per session was \$14.33. Thirty-nine independent institutes were held with an estimated attendance of 13,197. A State institute or round-up meeting, continuing for four sessions, was held, with an attendance of about 500 at each session. A report of the institutes was published, the edition comprising 15,000 copies. The reports were distributed chiefly in the local institute societies.

OKLAHOMA.

Institute director.—C. A. McNabb, secretary of the board of agriculture, Guthrie.

Institutes were held in all but three counties in Oklahoma last year. While there was no direct appropriation by the Territorial legislature for institute expenses, the department of agriculture expended from its appropriation about \$500 out of its contingent fund partly for meeting some minor expenses, and the balance was for the salary of the superintendent. The agricultural experiment station also expended about \$160 for defraying the expenses of its members in lecturing at the institutes.

The institute work as conducted this season was along much the same lines as in the previous year, except that the lecturers have been giving more attention to the practical side of farming operations particularly as respects seed selection and crop diversification. The stereopticon is being used in illustrating the lectures, also for showing the improvement possible in farm homes and in rural school buildings and surroundings.

In order to secure increased interest in the improvement of their agriculture the plan has been adopted of holding special sessions of institutes about every two weeks. The programmes for these meetings are arranged by a special committee. Each meeting discusses some one subject rather than several, and bulletins and circulars upon that topic are distributed among the members.

One hundred and forty-nine sessions of institutes were held this year, with an attendance of 7,460. Two independent institutes were

held having an estimated attendance of about 1,000. The agricultural experiment station sent out at different times eight men to lecture in the institutes. The aggregate amount of time given by them to this work during the year amounted to sixty-three days.

In assuming the responsibility of statehood Oklahoma has an opportunity for organizing her farmers' institutes upon a comprehensive basis and to enlarge the field of the institutes to embrace the giving of assistance to all agricultural institutions of whatever kind and to the system of public instruction as it affects the rural population by showing how the rural schools may be improved and the education given in them be adapted to meeting the special educational needs of farming people. That portion of the new State known as the Indian Territory which has not had institutes as yet can now be supplied.

OREGON.

Institute director.—James Withycombe, director agricultural experiment station, Corvallis.

Interest in the farmers' institutes in Oregon is increasing each year. In 1903-4 there were held 46 sessions of institutes, with an attendance of 4,500 persons. In 1905-6 there were held 109 sessions of institutes, with an attendance of 16,350 persons. Farming throughout the State has been much improved by the information that the institutes have distributed, exciting greater interest in the results of the work of the experiment station, and increasing the attendance at the Agricultural College.

As a rule two members of the experiment station staff attended each institute. In addition to these there were two specialists, one a successful dairyman and the other a noted breeder of draft horses. During the past season the station men delivered 218 addresses in institute meetings and participated in the discussions. The director has adopted the plan of shortening the addresses and devoting more time to the discussion of the subjects presented. The effect has been to increase the interest of farmers and to bring out more definite and practical information.

Encouragement has been given to the exhibition feature of the institute. Farmers are requested to bring out for exhibition specimens of the products of their farms as object lessons of what can be grown in the several localities. Practical demonstrations of this character have been found to be of great value in encouraging those who have failed in the growing of any crop to try again, applying the additional information which the institute has brought them in conducting the operation.

The stereopticon has been used to considerable extent in the evening meetings chiefly in illustrating the various types of dairy animals.

The State appropriates \$2,500 annually for meeting the expenses of the institutes. During the past year a farmers' conference and grange picnic were held in addition to the regular institutes, with an attendance of about 2,500 persons.

PENNSYLVANIA.

Institute director.—A. L. Martin, deputy secretary of agriculture and director of farmers' institutes, Harrisburg.

Institutes were held in Pennsylvania last year in 225 different localities. There were 987 sessions, and an attendance of 165,553 persons. The amount appropriated for institute purposes was \$20,500. The average attendance per session was 167. Thirty-one independent institutes were held in addition, with an attendance of 15,000 persons. There was also a round-up institute continuing for eight sessions, with an attendance of 1,000. A butter school continuing for a week was held in one of the dairy districts, conducted by a dairy expert from the dairy department of the agricultural college, under the auspices of the State institute director. The results were highly satisfactory.

For institute purposes the State is divided into six districts, and a corps of institute teachers is assigned to each district, each corps consisting of three lecturers selected and paid by the State director. The institute season extended from the last of November to the first of March, during which period all of the institute force was at work giving instruction. The special topics discussed were soil building, centralized schools, and animal husbandry. The agricultural experiment station furnished two men who were out in the field engaged in lecturing for sixty-two days. A woman's session was held in each institute. In some instances this was presided over by a lady selected by the community, and in others by the institute director. The places at which institutes are to be held are suggested by the local county committees, subject to the approval of the State director, who fixes the dates at which the meetings are to take place and arranges the itinerary in each district.

The proceedings of the annual round-up meeting of the institute workers are published in bulletin form and distributed through the mails and at institute meetings. Some of the best of the papers and addresses before the institutes are selected and published in the annual report of the State department of agriculture, of which 32,500 copies are printed annually.

PORTO RICO.

Institute director.—D. W. May, special agent in charge of the agricultural experiment station, Mayaguez.

One institute was held in Porto Rico last year, and was in connection with the Fruit Growers' Association at Bayamon. This association is composed of planters from the States, most of whom are

intelligent and enterprising agriculturists. The special agent who has been in charge of the institutes has found it most effective in the present state of agriculture in the island to visit periodically the different plantations and give demonstrations in the use of fertilizers, the mixing of sprays, spraying orchards, and in the laying out of farms, etc.

RHODE ISLAND.

Institute director.—John H. Dunn, secretary State board of agriculture, Providence.

One institute was held in Rhode Island this year under the auspices of the Rhode Island Conference of Rural Progress, to which the State board of agriculture appropriated \$100 for aiding in defraying the expense of the meeting. There is no special appropriation for institute purposes in Rhode Island. Whatever is devoted to this purpose is taken from the general funds appropriated to the board of agriculture. The attendance at the joint institute referred to was about 300.

The law directs that the board of agriculture shall hold at least one agricultural institute in each county each year, and may hold as many more as it deems expedient. The secretary of the State board of agriculture is charged with the duty of arranging for the holding of institutes and the cost is to be met out of the \$15,000 annually appropriated for the expenses of the board.

SOUTH CAROLINA.

Institute director.—J. N. Harper, director agricultural experiment station, Clemson College.

Authority to hold farmers' institutes in South Carolina is given by act of assembly to the board of trustees of the Clemson Agricultural College. The general management of the work is placed by the board in the hands of the director of the agricultural experiment station. Last year 74 sessions of institutes were held with an attendance of 11,149, and at a cost of \$2,325.83. This does not include the salary of the institute director. The appropriation for 1907 is \$5,000. The faculty of the agricultural college and the members of the experiment station staff contributed fifty-four days of time to the work. A round-up institute attended by about 1,000 persons and continuing for eight sessions was held. The Southern Railway aided the college in its institutes by giving the use of two cars for the transportation of illustrative material, and hauled these cars from place to place free of cost to the college. The institutes were all of one-day duration, and usually consisted of two sessions. The director selects the dates at which the institutes are to be held, and the place is designated by the institute board of trustees of the college upon invitations signed by at least 15 persons in the locality desiring an institute.

SOUTH DAKOTA.

Institute director.—A. E. Chamberlain, superintendent of farmers' institutes, Brookings.

The legislature of South Dakota by act approved March 3, 1905, created a State Farmers' Institute Board composed of the president of the agricultural college and two members of the State board of regents, and appropriated \$5,000 per year for institute purposes. One hundred and nineteen sessions of institutes were held last year with an attendance of about 10,000 persons. The agricultural college and the experiment station furnished together seven men for institute service who gave about sixty days of time to the work. An independent institute was held with an attendance of about 300. There was also one session of institute specially for boys with excellent results. About one hundred young people between the ages of 15 and 21 participated. The time was given chiefly to giving instruction in corn and stock judging. Dairy cattle, beef animals, sheep, and swine were provided by the community for this purpose. Prizes were given, running as high as \$5 in one instance. The judging of cereals extended to grains other than corn, embracing all of the crops that are usually grown upon a farm. The evening sessions were largely devoted to literary programmes along lines in the direction of beautifying and adding to the convenience of farm homes. Lectures on general subjects were also introduced, and good music both instrumental and vocal was made a feature. In one locality the institute continued for an entire week with constantly increasing interest. The weather conditions were such at times as to seriously interfere with the work, the extreme cold making it impossible in some instances for holding meetings through inability to heat the halls.

The institutes are now well started in South Dakota, and the coming year will no doubt see the work organized in all of the counties with efficient local committees in charge. The law provides that in all counties wherein is held a farmers' institute, organized by the election of five directors from whom shall be selected a president, vice-president, and secretary-treasurer, the institute shall be entitled to a sum not exceeding \$200 annually to be paid by the county commissioners and upon the presentation of regularly certified bills. This provision for meeting the expenses of the institutes in addition to the one appropriating \$5,000 to the agricultural college for institute purposes will enable the work in South Dakota to be carried on successfully, and to reach all portions of the State.

TENNESSEE.

Institute director.—W. W. Ogilvie, commissioner of agriculture, Nashville.

The agriculture of Tennessee is marked by three distinct divisions of territory known as eastern, middle, and western Tennessee. The principal crops grown on these areas are quite distinct, making it necessary to adapt the institutes to the several sections in order to meet their special requirements. This has made the work of conducting the institutes much more difficult than exists in some other States where the agricultural crops are more nearly homogeneous. During the past year 35 institutes were held; 5 one-day, 27 two-days, and 3 three or more days, aggregating 68 sessions, and having an attendance of 6,000. The amount appropriated for the institutes was \$2,500. Three round-up institutes or farmers' conventions were held, one in each of the sections referred to. They were attended by 4,000 persons and each continued through 8 sessions. The commissioner of agriculture fixes the dates and places for all of the meetings and also selects the State lecturers and arranges the programmes. Notice of the dates and places is given through the newspapers and by circulars sent directly to individuals. An annual report of the institute work is published, the edition numbering 5,000 copies which are distributed for the most part by mail.

TEXAS.

Institute director.—J. W. Carson, acting director agricultural experiment station, College Station.

The last legislature failed to make an appropriation for the support of the institute work in Texas. The board of trustees of the Agricultural and Mechanical College, appreciating the value of the work and not wishing to see it discontinued, made an appropriation from college funds to the amount of \$540 to pay part of the salary of the director of institutes, the balance of which was supplied out of the fund appropriated by the National Government for meeting the expense connected with the conducting of diversified farms throughout the State, the director of institutes being also charged with the oversight of these farms. Under this arrangement 27 institutes were held, consisting of 35 sessions and attended by 4,500 persons. A round-up institute attended by about 1,000 persons, was held, continuing through four sessions. Local farmers' institutes, picnics, farmers' union meetings, etc., were held throughout the State with an estimated attendance of 50,000. The results are seen in the enthusiasm aroused and in the general introduction of the improved methods in farming advocated by the institute lecturers. The agricultural college is asking the legislature for an appropriation of \$10,000 for the next two years for institute purposes. If this is secured, a

large amount of work can be accomplished, particularly if this amount is supplemented by the support which the National Government is giving in its propaganda of diversified farming in southern agriculture.

UTAH.

Institute director.—P. A. Yoder, director agricultural experiment station, Logan.

By act of the legislature institutes are required to be held in each county in Utah each year. For meeting the expenses of this work \$1,500 annually is appropriated to the trustees of the agricultural college, who are charged with the carrying out of the provisions of this act. Last year 45 institutes were held, made up of 73 sessions, with an average attendance of 91 persons per session, or a total of 6,680. A special effort was made to organize the farmers in each community into institutes or clubs and then to effect a county organization of which the local societies will be the units. Ultimately it is expected to form a State organization in which the county organizations, and through them all of the local organizations will be represented. The presidents of the local societies are vice-presidents of the county organizations, and from their number a president of the county organizations is chosen. The general work is under the control of the institute committee of the agricultural college faculty, who have appointed as their executive officer in the institutes the director of the agricultural experiment station. It is the aim of this committee to send speakers to one or more meetings of the county organizations each year, and to as many of the local organizations as possible. The responsibility for advertising meetings and for arranging the details of the programmes is left with the officers of the county and local organizations.

The work of the past year differs from that of previous years in that the lecture work was distributed through the entire faculty of the college and the staff of the experiment station. Fifteen members of the college faculty participated in the institute work, contributing two hundred and sixty hours, and eleven members of the station staff contributed one hundred and eighty hours, or fifty-five days of eight hours each in all. The general county meetings followed those held in the smaller settlements of the county as a round-up of the work in that county for that year.

VERMONT.

Institute director.—George Aitken, secretary State board of agriculture, Woodstock.

The board of agriculture of Vermont is required to hold one meeting in each county annually. The purposes of the board are declared to be "for the improvement of the general interests of husbandry and the promotion of agricultural education throughout the State."

The annual appropriation for farmers' meetings or institutes is \$5,000. Thirty-eight institutes were held last year, consisting of 76 sessions, with a total attendance of 7,962 persons. A "better farming special" was run for one week. During this time it made fifty-one stops. The cars were crowded at every station. The estimated number in attendance upon this train during this trip was 10,000. The experiment station furnished four lecturers for the institutes who gave thirty-one days to the work. A report of the institutes is prepared each year by the secretary and 3,000 copies are printed and distributed.

VIRGINIA.

Institute directors.—G. W. Koiner, commissioner of agriculture, Richmond; A. M. Soule, director agricultural experiment station and secretary Virginia State Farmers' Institute, Blacksburg.

Farmers institutes in Virginia are under the direction of the State board of agriculture which is composed of a representative from each of the ten Congressional districts. Five hundred dollars is appropriated annually for institutes in each district, and is expended under the direction of the representative of the board of the district. The only part of the work made the official duty of the secretary of the board is to receive the reports of these members and prepare them for publication. He has no fund to use for institute purposes outside of the appropriation to the directors, and consequently has no money to draw upon for the payment of speakers or other expenses.

Three years ago there was organized at Roanoke, Va., the Virginia State Farmers' Institute. This body is composed of representative farmers from all parts of the State who meet in a general convention once a year and discuss the needs of agriculture, and visit the agricultural college and experiment station at Blacksburg. The attendance this year was about 1,200, of whom 1,050 visited the college at Blacksburg on a special train provided by the Norfolk and Western Railway. The institute has a regular membership of about 600. Fifty-five of the counties of the State are represented upon it by county vice-presidents who are all members of the association. The director of the agricultural experiment station is the secretary of the institute.

During the year there was sent out a special seed train through a portion of the tobacco region of the State, and also through the Piedmont section and the Shenandoah Valley as well. Stops of thirty minutes were made at each station where meetings had been advertised. About 8,000 farmers were reached in this way. There were 35 regular institute meetings held during the year, composed of 65 sessions attended as reported by the institute director by 19,500 persons.

WASHINGTON.

Institute directors.—E. A. Bryan, president State College of Washington, Pullman; E. E. Elliott, professor of agriculture, State College, field agent in charge of institutes, Pullman.

Owing to the fact that there was no appropriation made for institutes in Washington, none were held under State direction. Thirty-two special or independent institutes, however, were held with an estimated attendance of 2,850. The expense was met by the localities holding the meetings, except that \$230 was contributed by the agricultural college. An effort will be made during the coming year to secure an appropriation from the legislature that will reestablish the institute work upon a more efficient system than heretofore.

WEST VIRGINIA.

Institute director.—H. E. Williams, director farmers' institutes, Charleston.

Institutes were held last year in West Virginia in 45 counties. The whole number of institutes was 81, consisting of 224 sessions, and attended by 4,480 persons, held at a cost of \$3,966.12. The work is under the control of a State director, who is appointed by the State board of agriculture. The board is required to "hold farmers' institutes for the instruction of the farmers of the State in the various branches of agriculture." Through its agent or director of institutes it fixes the dates and places at which institutes are to be held, and he is held responsible for the progress and efficiency of the work. The instruction given must be, as the law declares, "so arranged as to present to those in attendance the results of the most recent investigations in theoretical and practical farming." A dairy school lasting one week was held in Monroe County with marked success. This is an attempt to increase the informational value of the institutes by devoting more time to giving instruction upon a single topic. The proceedings of the institutes are distributed through the Farm Review, a paper published by the State in its department of agriculture.

The difficulties of transportation in West Virginia interfere very seriously with the attendance at the institute meetings. The mountainous character of the country and the sparsely settled condition of much of the State prevent the holding of as large meetings as in other more densely populated and highly developed agricultural regions, so that the average attendance of twenty at each session during the past year signifies much more interest in agriculture than the numbers would seem to indicate.

WISCONSIN.

Institute director.—George McKerrow, director farmers' institutes, Madison.

No new work, strictly speaking, was undertaken in Wisconsin in its institutes during the year. Attention was given to perfecting that which had previously been inaugurated, such as dairying, the breeding of dairy cows, the feeding of cows, sanitation in farm stables, ventilation, milk testing, cooperative creameries, cheese-making, horse breeding, feeding and developing horses for the market, sheep husbandry, swine breeding and fattening, poultry rearing, including egg production, farm gardening, small fruits, orchards, and other horticultural crops, together with giving information in the growing of the various other farm crops that are adapted to Wisconsin soil and climate.

Two hundred and forty-three sessions of institutes were held, with an attendance of 32,200. At least one institute was held in each county of the State. The annual appropriation is \$12,000, to which there was added \$972 for advertising space in the institute annual last year. A round-up institute was held, continuing through 11 sessions, with an attendance of 4,875. A railway special was run, but inasmuch as this was not under institute direction, the results are not reported. A feature of the Wisconsin institutes is the publication of the Institute Annual of 320 pages—a handbook of practical agriculture. This is prepared annually and 60,000 copies are published and distributed. It is intended in this way to preserve in permanent form the most valuable papers, lectures, and discussions that have been presented before the institutes during the year. The institute work in Wisconsin is under the control of the board of regents of the State University who appoint a director to take immediate charge of the work.

WYOMING.

Institute director.—B. C. Buffum, director agricultural experiment station, Laramie.

The director of institutes for Wyoming held last year 11 meetings, composed of 64 sessions, having an attendance of 3,401 persons. The amount of time and labor which this involved can not be appreciated except by those who are familiar with the conditions that exist in Wyoming. The sparsely settled state of the country, the lack of railroad facilities, and the severity of the climate combine to add to the difficulty of reaching all portions of the State with institute instruction. The work was performed chiefly by the members of the faculty of the agricultural college and by the experiment station staff. The college contributed three men for ten days, and the station five men for one hundred and fifteen days. Considering the difficulties and the small appropriation, \$1,000 per year, the amount of work done is surprising.

STATISTICS OF FARMERS' INSTITUTES, 1906.

Number of institutes held and the approximate attendance during the year ended June 30, 1906.

State or Territory.	Number of one-day institutes.	Number of two-day institutes.	Number of three or more day institutes.	Total.	Total number of sessions.	Total attendance at all sessions.	Average per session.
Alabama.....	27	8	.....	35	85	8,590	101
Alaska ^a.....	.....	.....	.....	.....	.....	.....	.....
Arizona.....	21	.....	.....	21	21	1,307	62
Arkansas.....	28	3	.....	31	42	7,150	170
California.....	55	27	1	83	272	22,861	84
Colorado.....	24	13	3	40	123	16,675	135
Connecticut.....	24	.....	.....	24	83	4,895	59
Delaware.....	18	.....	.....	18	40	7,200	180
Florida ^a.....	.....	.....	.....	.....	.....	.....	.....
Georgia.....	17	4	.....	21	42	4,500	107
Hawaii.....	4	.....	.....	4	8	300	37
Idaho.....	5	15	1	21	105	7,875	75
Illinois.....	.....	65	43	108	667	79,428	119
Indiana.....	118	132	.....	250	918	129,894	141
Iowa.....	.....	36	33	69	402	66,959	166
Kansas.....	128	25	2	155	522	27,300	52
Kentucky.....	1	24	.....	25	122	.....	.....
Louisiana.....	22	.....	.....	22	44	2,657	60
Maine.....	50	.....	.....	50	102	6,967	68
Maryland.....	37	12	.....	49	125	10,762	86
Massachusetts.....	125	.....	.....	125	153	19,125	125
Michigan.....	259	72	4	335	934	122,573	128
Minnesota.....	98	5	2	105	238	51,211	215
Mississippi.....	108	2	.....	110	220	10,000	45
Missouri.....	100	55	1	156	410	36,900	90
Montana.....	64	7	.....	71	133	7,890	59
Nebraska.....	71	86	3	160	515	72,894	141
Nevada ^a.....	.....	.....	.....	.....	.....	.....	.....
New Hampshire.....	15	1	.....	16	34	3,000	88
New Jersey.....	33	7	.....	40	116	11,611	100
New Mexico ^a.....	.....	.....	.....	.....	.....	.....	.....
New York.....	114	142	3	259	1,062	134,989	126
North Carolina.....	95	1	.....	96	195	25,950	133
North Dakota.....	17	21	5	43	162	20,310	125
Ohio.....	.....	245	.....	245	1,225	81,816	66
Oklahoma.....	2	29	.....	31	149	7,460	50
Oregon.....	40	4	.....	44	109	16,350	150
Pennsylvania.....	63	159	4	226	987	165,553	167
Porto Rico.....	1	.....	.....	1	1	50	50
Rhode Island.....	.....	1	.....	1	2	300	150
South Carolina.....	54	.....	.....	54	74	11,149	150
South Dakota.....	17	40	2	59	119	10,000	84
Tennessee.....	5	27	3	35	68	6,000	88
Texas.....	25	2	.....	27	35	4,500	128
Utah.....	40	5	.....	45	73	6,680	91
Vermont.....	38	.....	.....	38	76	7,960	104
Virginia.....	.....	.....	.....	.....	65	19,500	300
Washington ^a.....	.....	.....	.....	.....	.....	.....	.....
West Virginia.....	50	31	.....	81	224	4,480	20
Wisconsin.....	81	.....	.....	81	243	32,200	132
Wyoming.....	4	5	2	11	64	3,401	53
Total.....	2,098	1,311	112	3,521	11,409	1,299,172	4,860
Average.....	.....	.....	.....	.....	.....	.....	^b 114

^a No institutes held.

^b Obtained by dividing total attendance by total number of sessions.

Financial statistics of the farmers' institutes for the year ended June 30, 1906.

State or Territory.	Funds appropriated.		Cost.		Appropriations for the season of 1906-7.
	State.	College and other funds	Total cost.	Cost per session.	
Alabama		\$600.00	^b \$600.00	\$7.06	\$600.00
Alaska ^a					
Arizona	\$608.85		608.85	28.99	
Arkansas	250.00	150.00	^b 400.00	9.52	
California	6,000.00	3,000.00	^b 9,000.00	33.08	6,000.00
Colorado	4,000.00		3,300.00	26.83	
Connecticut	400.00	1,425.00	1,825.00	22.00	
Delaware	600.00	125.00	^b 725.00	18.12	600.00
Florida ^a					
Georgia	2,500.00		2,500.00	59.52	2,500.00
Hawaii		33.45	^b 33.45	4.18	
Idaho	1,000.00		^b 1,000.00	9.52	1,000.00
Illinois	17,150.00	13,131.55	29,669.56	44.48	17,150.00
Indiana	10,000.00	2,500.00	12,500.00	13.61	10,000.00
Iowa	7,425.00	671.06	^b 8,096.06	20.14	7,425.00
Kansas	2,000.00		^b 2,000.00	3.83	2,500.00
Kentucky	1,750.00		^b 1,750.00	14.23	15,000.00
Louisiana	2,000.00		^b 2,000.00	45.45	2,000.00
Maine	5,000.00		5,000.00	49.02	5,000.00
Maryland	6,000.00		4,000.00	32.00	6,000.00
Massachusetts	3,000.00		^b 1,760.44	11.51	3,000.00
Michigan	7,500.00	7,500.00	15,000.00	16.06	7,500.00
Minnesota	18,000.00	2,238.40	20,200.00	54.87	18,000.00
Mississippi	3,000.00		^b 3,000.00	13.64	3,000.00
Missouri	5,000.00		5,000.00	12.20	
Montana	4,000.00	1,000.00	^b 4,926.54	37.04	4,000.00
Nebraska	6,000.00	2,607.00	8,607.00	16.71	6,000.00
Nevada ^a					
New Hampshire	1,600.00	500.00	^b 2,100.00	61.76	1,600.00
New Jersey	3,000.00		3,000.00	25.86	3,000.00
New Mexico ^a					
New York	20,000.00		20,000.00	18.83	20,000.00
North Carolina	2,500.00	3,000.00	5,500.00	28.21	3,500.00
North Dakota	6,000.00	379.07	5,577.16	34.43	6,000.00
Ohio	16,747.62	882.27	^b 17,629.89	14.33	22,000.00
Oklahoma	500.00	160.00	^b 660.00	4.43	
Oregon	2,500.00		1,724.73	15.82	2,500.00
Pennsylvania	20,500.00		20,500.00	20.77	20,500.00
Porto Rico					
Rhode Island	100.00		^b 100.00	50.00	
South Carolina	4,524.40		^b 2,325.83	31.43	5,000.00
South Dakota	5,000.00	1,500.00	6,500.00	54.62	5,000.00
Tennessee	2,500.00		2,426.11	35.68	2,500.00
Texas		540.00	540.00	15.43	
Utah	1,500.00	500.00	2,000.00	27.40	1,500.00
Vermont	5,000.00		2,830.34	37.24	
Virginia	5,000.00		^b 5,000.00	76.00	5,000.00
Washington ^a					
West Virginia	3,966.12		3,966.12	17.70	4,000.00
Wisconsin	12,000.00		10,782.74	44.37	12,000.00
Wyoming	1,000.00	107.59	^b 1,107.59	17.31	1,000.00
Total	227,121.99	42,550.39	257,772.41	1,265.23	232,375.00
Average				28.12	

^a No institutes held.

^b Salary of directors and college and station speakers not included.

Comparative statement of farmers' institutes—appropriations, number, attendance.

State or Territory.	Appropriations.			Number of sessions.		Number of institutes.			Attendance.		
	1903-4	1904-5	1905-6	1904-5	1905-6	1903-4	1904-5	1905-6	1903-4	1904-5	1905-6
Alabama.....	\$600.00	\$600.00	\$600.00	48	85	24	24	35	3,639	3,820	8,590
Alaska ^a											
Arizona.....	50.00	50.00	608.85	12	21	1	1	21	600	250	1,307
Arkansas.....		400.00	400.00	60	42		30	31		7,650	7,150
California.....	7,234.00	8,934.00	9,000.00	429	272	113	110	83	43,680	43,494	22,861
Colorado.....	517.00		4,000.00	52	123	15	20	40	1,660	2,700	16,675
Connecticut.....	200.00	428.00	1,825.00	28	83	18	14	24	2,500	1,200	4,895
Delaware.....	750.00	750.00	725.00	23	40	18	18	18	3,436	4,199	7,200
Florida ^a											
Georgia.....	1,000.00	3,500.00	2,500.00	108	42	34	44	21	7,000	18,000	4,500
Hawaii.....	30.00	35.00	33.45	8	8	4	4	4	200	350	300
Idaho.....	1,000.00	1,000.00	1,000.00	113	105	17	25	21	3,100	4,000	7,875
Illinois.....	18,173.00	20,960.39	30,281.55	635	667	105	100	108	84,681	69,759	79,428
Indiana.....	10,000.00	10,000.00	12,500.00	883	918	175	250	250	59,189	79,964	129,894
Iowa.....	7,425.00	7,425.00	8,096.06	207	402	70	60	69	17,750	18,000	66,959
Kansas.....	2,000.00	2,000.00	2,000.00	144	522	58	55	155	14,432	11,455	27,300
Kentucky.....	500.00	1,206.16	1,750.00	73	122	4	17	25	1,200	3,350	
Louisiana.....	2,000.00	2,500.00	2,000.00	208	44	39	67	22	12,000	14,541	2,657
Maine.....	2,500.00	5,000.00	5,000.00	93	102	37	44	50	5,473	5,731	6,967
Maryland.....	4,000.00	6,000.00	6,000.00	73	125	23	26	49	3,250	5,741	
Massachusetts.....	1,530.00	2,700.00	3,000.00	167	153	104	115	125	11,039	12,372	19,125
Michigan.....	9,825.00	9,300.00	15,000.00	827	934	292	270	335	52,236	55,004	122,573
Minnesota.....	18,000.00	18,000.00	20,238.40	227	238	154	105	105	46,210	52,125	51,211
Mississippi.....	1,725.00	3,000.00	3,000.00	311	220	107	153	110	11,326	30,000	10,000
Missouri.....	5,000.00	3,100.00	5,000.00	256	410	147	104	156	30,220	2,960	36,900
Montana.....	4,000.00	2,500.00	5,000.00	100	133	44	47	71	4,500	6,946	7,890
Nebraska.....	6,000.00	6,000.00	8,607.00	480	515	96	150	160	25,097	67,241	72,894
Nevada.....	83.00	379.00	(a)	20		4	10		453	665	
New Hampshire.....	1,588.00	1,600.00	2,100.00	28	34	18	13	16	3,400	2,900	3,000
New Jersey.....	1,800.00	1,838.15	3,000.00	111	116	30	30	40	4,500	5,538	11,611
New Mexico.....	28.00	28.00	(a)	3		4	1		150	150	
New York.....	20,000.00	20,000.00	20,000.00	967	1,062	267	261	259	64,347	87,439	134,989
North Carolina.....	850.00	2,150.00	5,500.00	226	195	35	61	96	8,411	11,168	25,950
North Dakota.....	4,000.00	4,171.94	6,379.07	140	162	46	61	43	13,567	12,838	20,310
Ohio.....	16,747.00	19,598.68	17,629.89	1,399	1,225	245	281	245	75,360	92,593	81,816
Oklahoma.....	1,000.00		660.00	156	149	52	58	31	5,200	5,500	7,460
Oregon.....	350.00	620.00	2,500.00	54	109	14	18	44	4,500	5,500	16,350
Pennsylvania.....	20,500.00	20,500.00	20,500.00	862	987	204	196	226	70,380	150,932	165,553
Porto Rico.....								1			50
Rhode Island.....	600.00	100.00	100.00	6	2	12	1	1	1,260	400	300
South Carolina.....	600.00	1,194.56	4,524.40	56	74	33	33	54	8,690	7,460	11,149
South Dakota.....	(a)	(a)	6,500.00	(a)	119	(a)	(a)	59	(a)	(a)	10,000
Tennessee.....	5,000.00	5,000.00	2,500.00	200	68	72	72	35	8,300	8,300	6,000
Texas.....	3,950.00	3,850.00	540.00	146	35	144	110	27	15,130	8,500	4,500
Utah.....	1,500.00	1,500.00	2,000.00	40	73	59	15	45	12,000	1,500	6,680
Vermont.....	5,000.00	5,000.00	5,000.00	80	76	48	40	38	10,000	7,500	7,962
Virginia.....	3,500.00	5,500.00	5,000.00	70	65	50	35		10,000	8,000	19,500
Washington.....	2,500.00	3,000.00	(a)	150	(a)	57	46		15,922	7,282	
West Virginia.....	4,556.00	2,455.26	3,966.12	199	224	97	63	81	12,095	9,450	4,480
Wisconsin.....	12,000.00	14,942.75	12,000.00	270	243	101	82	81	52,000	43,000	32,200
Wyoming.....			1,107.59	7	64		1	11		75	3,401
Total.....	210,211.00	225,738.89	269,672.38	10,555	11,409	3,306	3,271	3,521	841,648	995,192	1,299,172

^a No institutes held.

Number of lecturers employed by the State directors of farmers' institutes during the year ended June 30, 1906.

State or Territory.	Total number of lecturers on the State force.	Number of members of agricultural college and experiment station staffs engaged in institute work.	Number of days contributed to institute work by the agricultural college and experiment station staffs.	Total number of institutes held during the year.	Reports of proceedings.	
					Published.	Number of copies.
Alabama.....	13	8	150	43	No.....	.....
Alaska ^a.....	.....	.....	.....	.....	.....	.....
Arizona.....	3	3	21	21	No.....	.....
Arkansas.....	6	6	31	34	No.....	.....
California.....	37	10	100	112	Yes.....	12,500
Colorado.....	23	12	295	53	Yes.....	10,000
Connecticut.....	60	11	40	24	No.....	.....
Delaware.....	11	1	12	18	Yes.....	5,000
Florida ^a.....	.....	.....	.....	.....	.....	.....
Georgia.....	34	6	106	25	No.....	.....
Hawaii.....	9	4	8	4	Yes.....	1,000
Idaho.....	13	9	20	38	No.....	.....
Illinois.....	109	30	239	259	Yes.....	20,000
Indiana.....	46	5	27	382	No.....	.....
Iowa.....	5	.....	.....	171	.....	.....
Kansas.....	21	21	.....	184	No.....	.....
Kentucky.....	.....	.....	.....	49	.....	.....
Louisiana.....	20	2	.....	22	Yes.....	2,500
Maine.....	27	2	20	50	.....	.....
Maryland.....	8	.....	.....	61	.....	.....
Massachusetts.....	69	13	13	125	Yes.....	15,000
Michigan.....	42	13	100	415	Yes.....	9,500
Minnesota.....	105	4	18	114	Yes.....	3,500
Mississippi.....	21	18	360	112	No.....	.....
Missouri.....	28	14	.....	213	In part.....	.....
Montana.....	25	8	110	78	Yes.....	5,000
Nebraska.....	38	15	150	252	No.....	.....
Nevada ^a.....	.....	.....	.....	.....	.....	.....
New Hampshire.....	12	8	8	17	Yes.....	2,000
New Jersey.....	14	4	66	47	No.....	.....
New Mexico ^a.....	.....	.....	.....	.....	.....	.....
New York.....	64	22	230	407	Yes.....	15,000
North Carolina.....	21	12	109	97	Yes.....	30,000
North Dakota.....	47	4	35	74	Yes.....	10,000
Ohio.....	27	.....	.....	490	Yes.....	15,000
Oklahoma.....	9	8	63	60	No.....	.....
Oregon.....	8	4	220	48	No.....	.....
Pennsylvania.....	56	2	62	393	Yes.....	50,000
Porto Rico.....	3	1	1	1	No.....	.....
Rhode Island.....	4	.....	.....	2	Yes.....	2,000
South Carolina.....	15	15	108	54	No.....	.....
South Dakota.....	14	14	120	103	Yes.....	600
Tennessee.....	11	4	.....	68	Yes.....	5,000
Texas.....	39	2	2	29	No.....	.....
Utah.....	17	17	55	50	Yes.....	7,000
Vermont.....	26	8	.....	38	Yes.....	3,000
Virginia.....	11	.....	.....	.....	.....	.....
Washington ^a.....	.....	.....	.....	.....	.....	.....
West Virginia.....	29	1	220	112	Yes.....	.....
Wisconsin.....	24	0	.....	81	Yes.....	60,000
Wyoming.....	1	1	.....	26	No.....	.....
Total.....	1,225	342	3,119	5,056	.....	315,100

^a No institutes held.

Population of the several States and Territories in 1900, the total number of homes, the number and per cent of farm homes, and the approximate population in farm homes.

State or Territory.	Population.	Total number of homes.	Number of farm homes.	Per cent of farm homes.	Approximate population in farm homes.
Alabama.....	1,828,697	374,765	217,461	58	1,060,644
Alaska.....	63,592	13,459	27	0.2	127
Arizona.....	122,931	29,875	7,391	24.7	30,362
Arkansas.....	1,311,564	265,238	176,017	66.4	870,878
California.....	1,485,053	341,781	71,119	20.8	308,891
Colorado.....	539,700	127,459	24,745	19.4	104,701
Connecticut.....	908,420	203,424	26,609	13.1	119,003
Delaware.....	184,735	39,446	9,677	24.5	45,260
Florida.....	528,542	117,001	40,965	35	184,989
Georgia.....	2,216,331	455,557	221,395	48.6	1,077,138
Hawaii.....	154,001	36,922	1,409	3.8	5,852
Idaho.....	161,772	37,491	17,153	45.8	74,091
Illinois.....	4,821,550	1,036,158	262,388	25.3	1,219,852
Indiana.....	2,516,462	571,513	221,451	38.7	973,870
Indian Territory.....	392,060	76,701	47,594	62.1	187,579
Iowa.....	2,231,853	480,878	223,525	46.5	1,037,811
Kansas.....	1,470,495	321,947	167,006	51.9	763,186
Kentucky.....	2,147,174	437,054	234,821	53.7	1,153,032
Louisiana.....	1,381,625	284,875	114,214	40.1	554,031
Maine.....	694,466	163,344	57,153	35	243,063
Maryland.....	1,188,044	242,331	47,089	19.4	230,480
Massachusetts.....	2,803,346	613,659	36,510	5.9	165,515
Michigan.....	2,420,982	548,094	202,457	36.9	893,342
Minnesota.....	1,751,394	342,658	152,393	44.5	779,470
Mississippi.....	1,551,270	318,948	221,110	69.3	1,075,030
Missouri.....	3,106,665	654,333	282,840	43.2	1,340,079
Montana.....	243,329	55,889	13,909	24.9	60,588
Nebraska.....	1,066,300	220,947	116,854	52.9	564,072
Nevada.....	42,335	11,190	2,164	19.3	8,170
New Hampshire.....	411,588	97,902	28,271	28.9	118,948
New Jersey.....	1,883,669	415,222	35,337	8.5	160,111
New Mexico.....	195,310	46,355	13,102	28.3	55,272
New York.....	7,268,894	1,634,523	227,822	13.9	1,010,376
North Carolina.....	1,893,810	370,072	223,831	60.5	1,145,755
North Dakota.....	319,146	64,690	44,112	68.2	217,657
Ohio.....	4,157,545	944,433	280,068	29.7	1,237,790
Oklahoma.....	398,331	86,908	63,094	72.6	289,188
Oregon.....	413,536	91,214	36,156	39.6	163,761
Pennsylvania.....	6,302,115	1,320,025	225,565	17.1	1,077,660
Porto Rico.....					
Rhode Island.....	428,556	94,179	5,638	6	25,713
South Carolina.....	1,340,316	269,864	152,993	56.7	759,959
South Dakota.....	401,570	83,536	51,937	62.2	249,776
Tennessee.....	2,020,616	402,536	226,027	56.2	1,135,585
Texas.....	3,048,710	589,291	341,889	58	1,768,251
Utah.....	276,749	56,196	19,529	34.8	96,308
Vermont.....	343,641	81,462	32,871	40.4	138,830
Virginia.....	1,854,184	364,517	170,412	46.8	867,758
Washington.....	518,103	113,086	33,931	30	155,430
West Virginia.....	958,800	186,291	94,566	50.8	487,070
Wisconsin.....	2,069,042	436,063	169,531	39.8	823,478
Wyoming.....	92,531	20,116	5,939	29.5	27,296
Total.....	75,933,450	16,191,418	5,700,067	1,908.4	26,143,078
Average.....				37.4	

